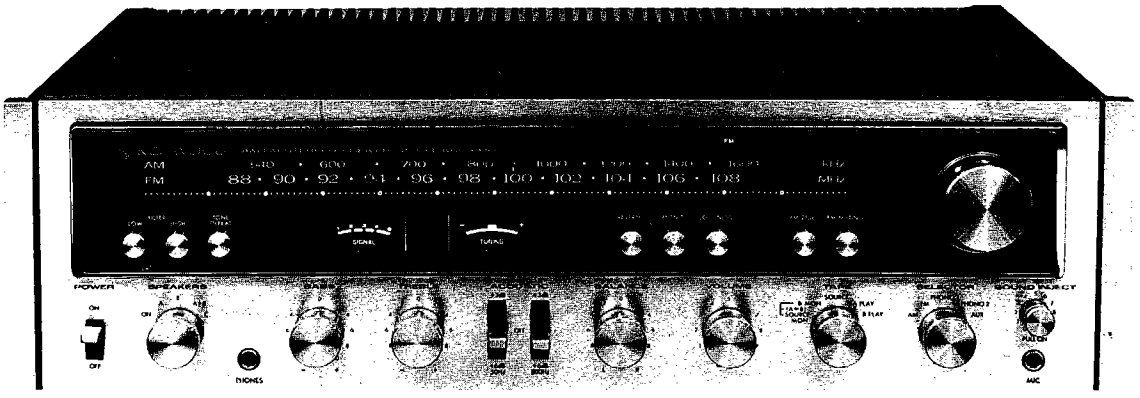
KENWOOD

HI/FI STEREO COMPONENTS

SERVICE MANUAL

KR-6600(6060)
KR-7600(7060)



AM-FM STEREO RECEIVER

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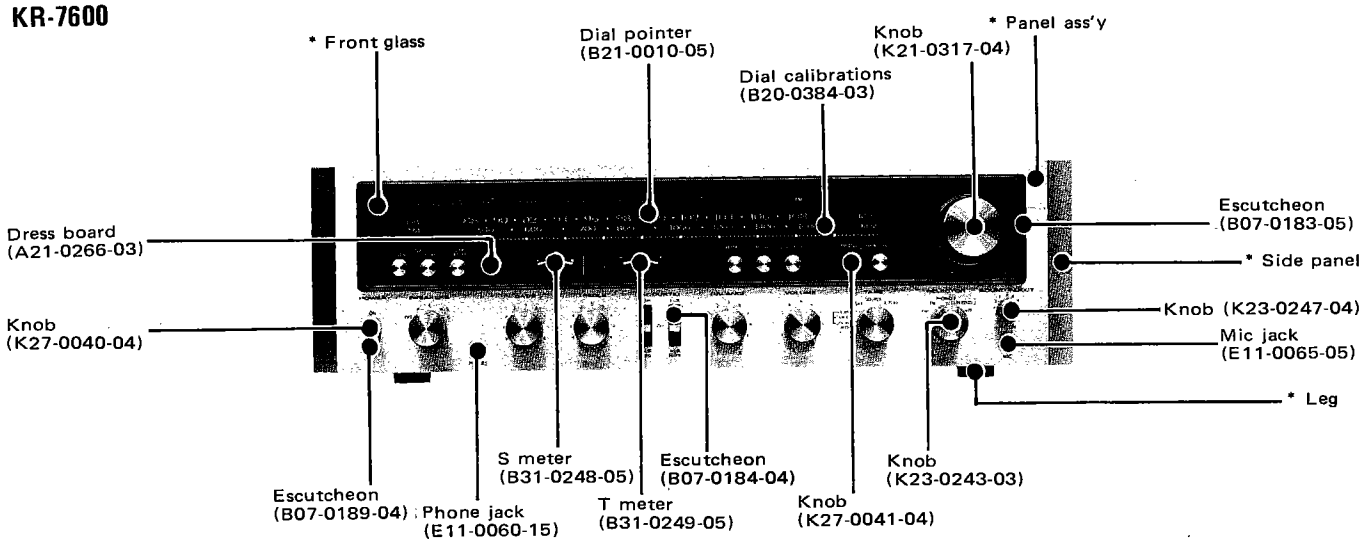
Note 1:
The products are subject to modification in components and circuits in different countries and regions. This is because each products must be used under the best condition.
This manual provides information of modification based on the standard in the U.S. for the convenience of ordering associated components and parts.

U.S.A.	K
Canada	P
PX	U
Australia	X
Europe	W
England	T
Scandinavia	L
General Export	M_1
Audio Club	M_2

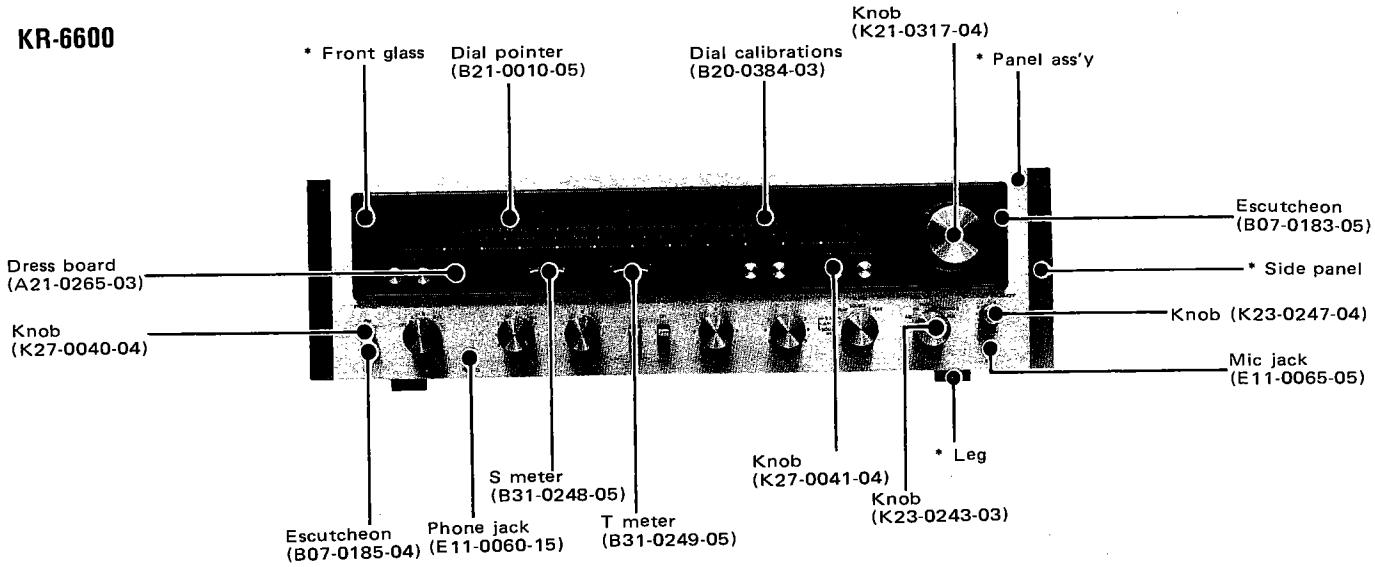
Note 2:
Symbol ☆ in parts list means the new parts.

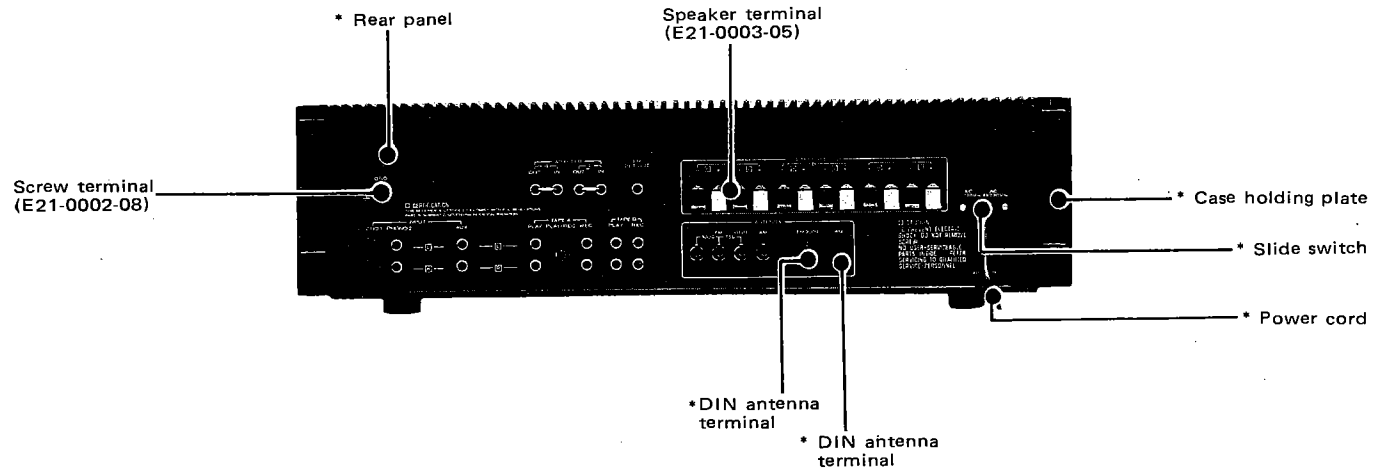
EXTERNAL VIEW

KR-7600



KR-6600

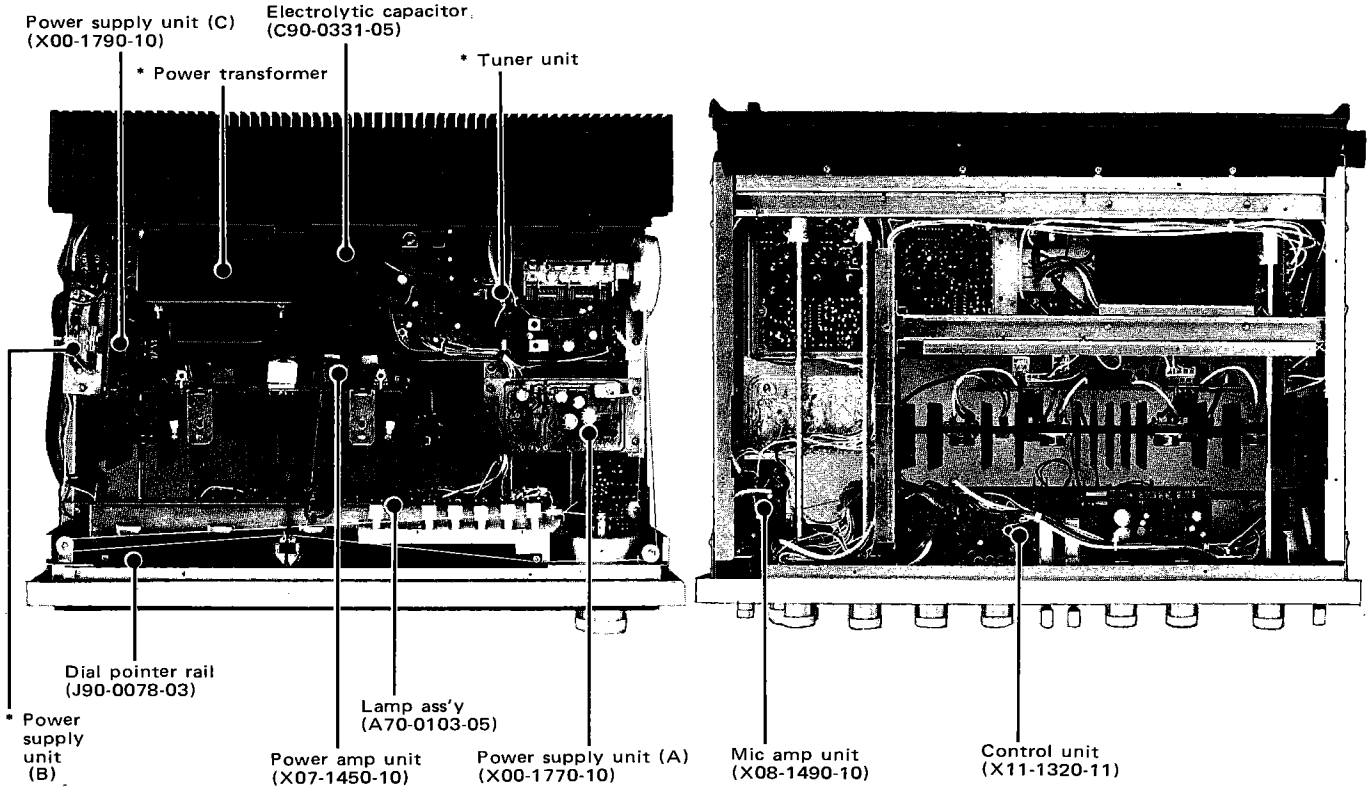




* Refer to Destinations' parts list.

INTERNAL VIEW/DISASSEMBLY

KR-6600

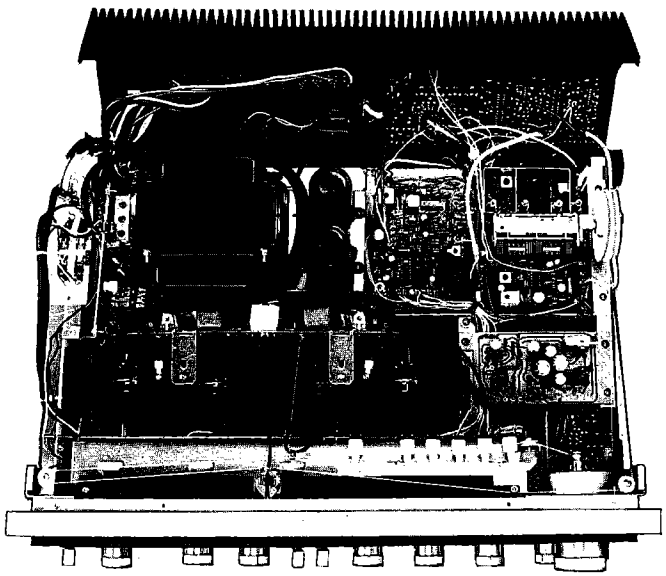


DISASSEMBLY

* Refer to Destinations' parts list.

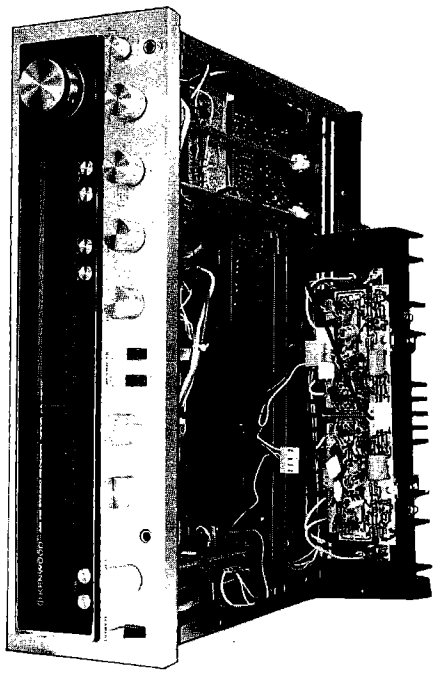
PREAMP REPAIRING

1. Remove the screws fixing the rear panel to the chassis.
2. The set can be disassembled as shown.
3. After repairing, assemble the set taking care of the rotary switch position.



POWER AMP REPAIRING

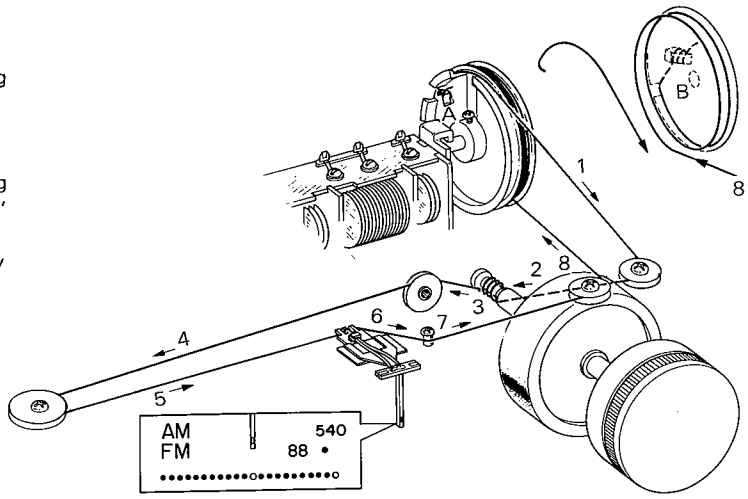
1. Remove the screws fixing the heat sink to the chassis.
2. Remove the mini-connector of the power amp unit.
3. Pull out the power amp unit from the top side of the set and assemble it as shown.



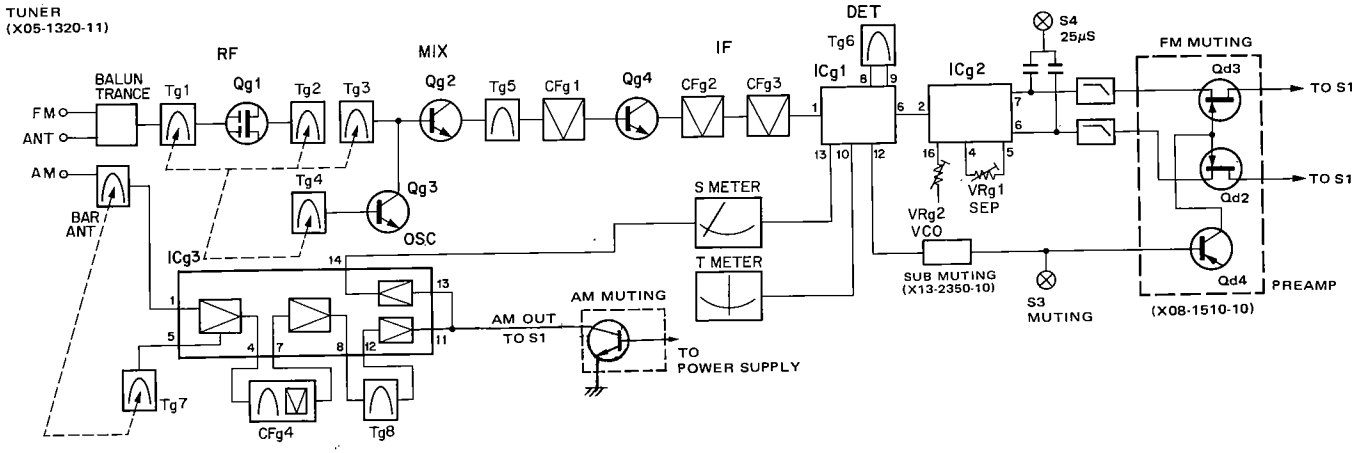
DIAL CORD STRINGING/BLOCK DIAGRAM

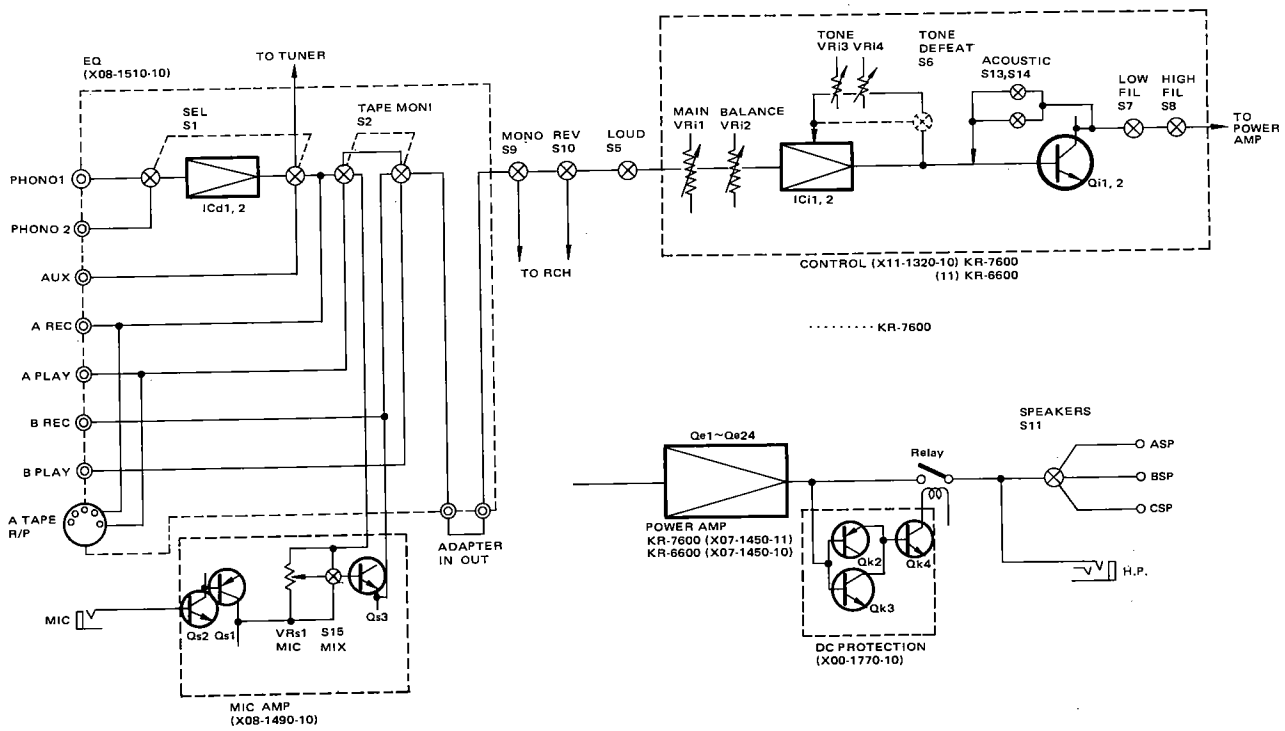
DIAL CORD STRINGING

1. Fully open the variable capacitor.
2. Fix the dial pulley to the shaft of the variable capacitor using 2 screws as shown.
3. Tie the dial cord to the boss A.
4. Dress the dial cord in the direction of "1" to "2".
5. Wind the dial cord 3 turns around the dial shaft starting from its lower side, then dress it in the direction of "3" to "7".
6. Wind the dial cord 2 turns and a half around the dial pulley starting from its lower side and tie it to the boss B.
7. Fully close the variable capacitor.
8. Mount the dial pointer as shown in the illustration.



BLOCK DIAGRAM





CIRCUIT DESCRIPTIONS

FM RF

Qg1: MOS-FET, RF amp
Qg2: Mixer
Qg3: Local oscillator
Qg4: IF amp

Dg1: Limiter
Dg2: Poping-noise elimination for AM-FM switchover
Dg3: Reverse current prevention

IF CIRCUIT

The IF circuit employs IC HA1137W in which quadrature detector circuit, muting circuit, and meter circuit are incorporated. (See block diagram.)
Quadrature detection is a sort of phase detection. A signal from the third IF AMP is directly applied to one side of input circuits of the multiplier of quadrature detector, and another signal is applied to the other side through the phase shifter of Tg6. The variable in phase difference obtained from these two signals is utilized for detection.

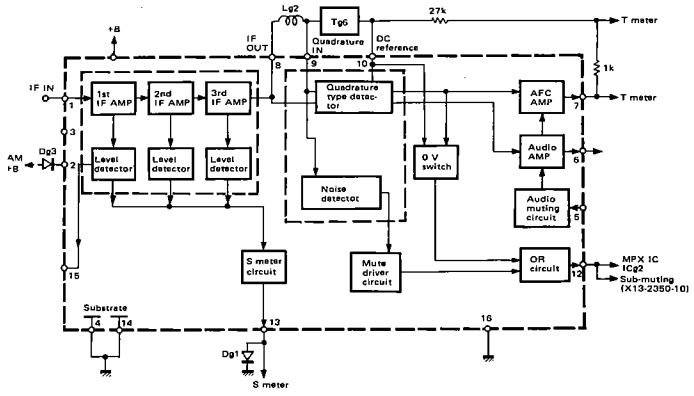


Fig. 1 HA1137W BLOCK DIAGRAM

FM MUTING CIRCUIT

The FM muting circuit employs Qd2 (Qd3) of the preamplifier unit as a switching element. The operating voltage for muting is taken out of the muting circuit within the IC.

—DETECTION PROCEDURE—

Intensity of input level is detected from a position where a signal equivalent to the quadrature detection input is obtainable (NOISE DETECTOR). The obtained signal is supplied to the MUTE DRIVER CIRCUIT. On the other hand, DC output (discrimination curve) of the quadrature detector is fed to the 0V SWITCH and output is generated as shown in Fig. 2-(a). This output and above-mentioned input level detecting signal are put in the OR CIRCUIT, thus generating an OR output as shown in Fig. 2-(c).

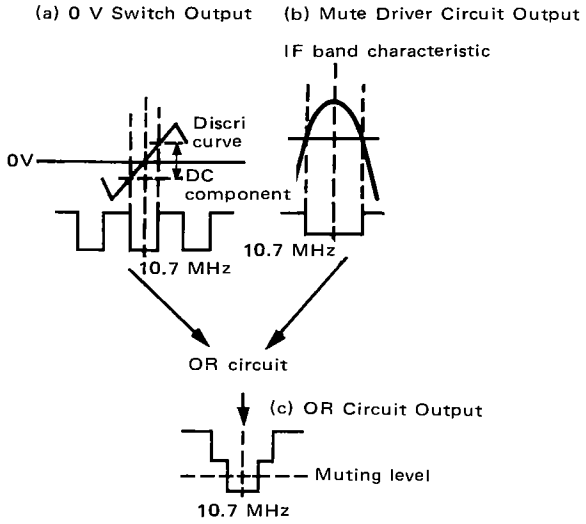


Fig. 2 HA1137W MUTING DETECTION

Namely, when the input signal is weak or deviates from the discrimination curve of the FM detector, operating voltage for muting is generated exceeding the muting level. (The muting start level corresponds to the antenna input below 8μV.) This operating voltage is processed for wave-form trimming at the Schmidt circuit of the SUB-MUTING unit (X13-2350-10) and then used as a trigger signal for ON-OFF switching of Qd4.
Muting start voltage → Qp2: ON → Qp1: OFF → Qd4: OFF
When S3 is ON (Qd4: OFF), FM +B is directly applied to the gate circuit of FET Qd2 (Qd3) and FET is switched on (FET turned on). When Qd4 is ON, gate voltage of Qd2 (Qd3) is lowered and FET is switched off (FET turned off). When S3 is OFF, +B is always maintained at the gate circuit of FET which is therefore turned on. This operating voltage for muting is also applied to terminal No. 12 of MPX IC (the forced MONO circuit) for the prevention of misoperation of ST lamp.

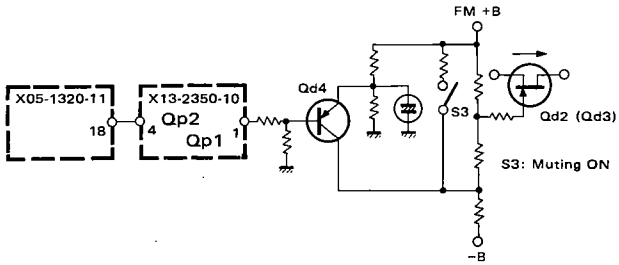


Fig. 3 DETECTION PROCEDURE

FM-MPX

The FM-MPX circuit employs newly designed MPX IC, HA1196. (See block diagram.) Compared with conventional HA1156, the distortion factor is very low. VCO is adjusted to 76 kHz. For FM dolby broadcast, the de-emphasis circuit is switched over to 25μsec (S4).

CIRCUIT DESCRIPTIONS/TROUBLESHOOTING

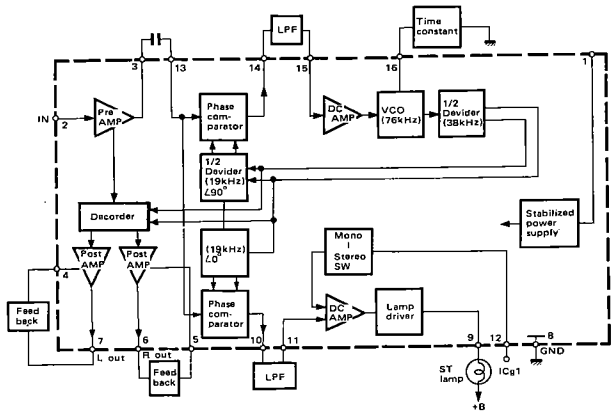


Fig. 4 HA1196 BLOCK DIAGRAM

PROTECTION

1. ASO detection protection: Power AMP Qe9~Qe16
2. DC protection: Power supply Qk2~4

When DC voltage is generated at the power amplifier, the relay is released and the output circuit is cut off. Qk3 is turned on when + voltage is generated, while Qk2 is turned on when – voltage is generated. When either one is turned on, Qk4 is turned off and the relay is released.

AM TUNER

The exclusively designed IC HA1151 is adopted. In this circuit, Qd1 is used for the prevention of shock noise which occurs at time of switching on in AM setting.

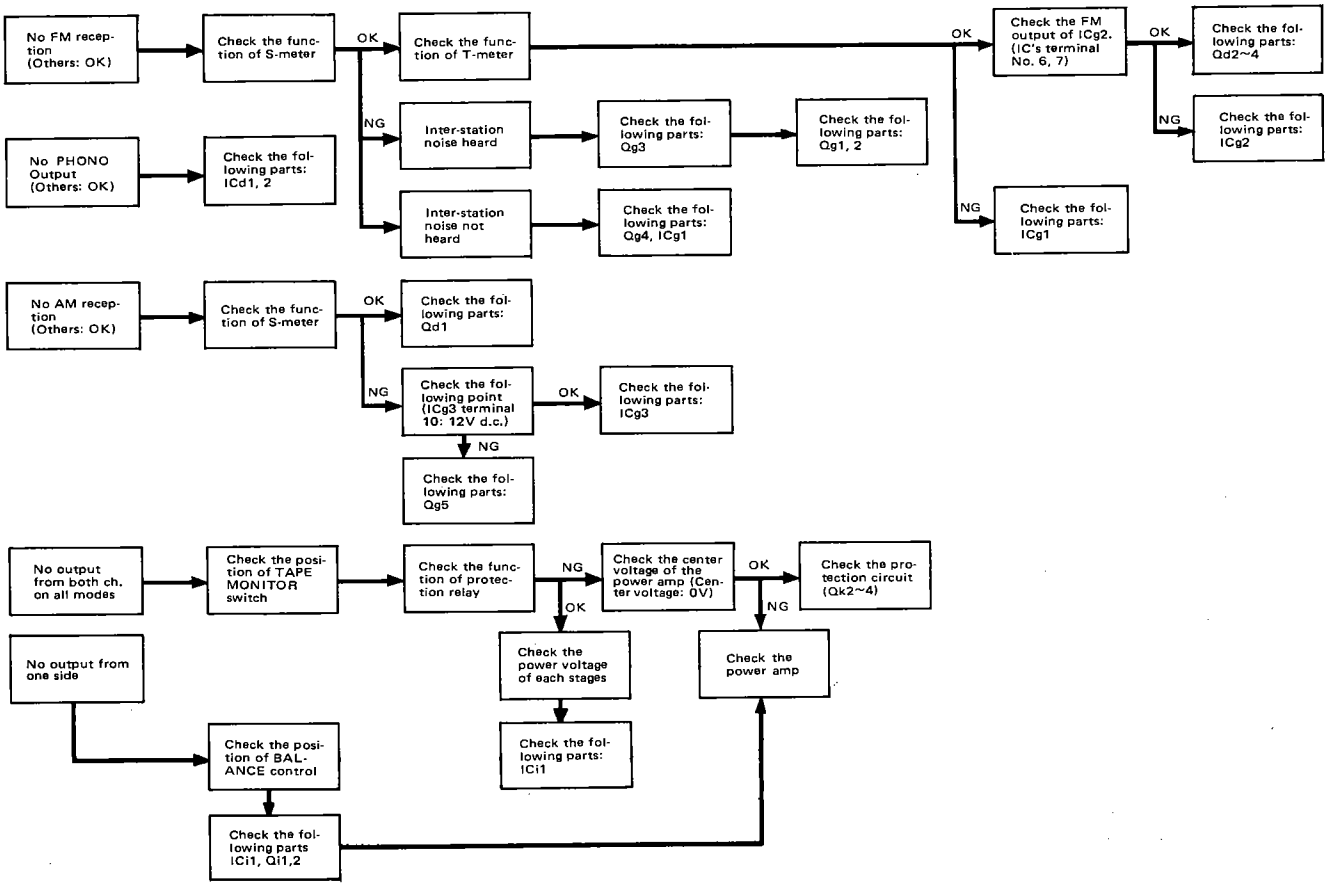
1. Power SW ON (transient)

Qk4 → OFF
↓
AM MUT terminal → + voltage
↓
Qd1 → ON

2. Steady state after power SW ON

Qk4 → ON
↓
AM MUT terminal → -voltage
↓
Qd1 → OFF

TROUBLESHOOTING


No FM reception (Others: OK)
Check the function of S-meter
OK
Check the function of T-meter
OK
Check the FM output of ICg2. (IC's terminal No. 6, 7)
OK
Check the following parts: Qd2~4
NG
Check the following parts: ICg2
NG
Inter-station noise heard
Check the following parts: Qg3
Check the following parts: Qg1, 2
No PHONO Output (Others: OK)
Check the following parts: ICd1, 2
Inter-station noise not heard
Check the following parts: Qg4, ICg1
NG
Check the following parts: ICg1
No AM reception (Others: OK)
Check the function of S-meter
OK
Check the following parts: Qd1
NG
Check the following point (ICg3 terminal 10: 12V d.c.)
OK
Check the following parts: ICg3
NG
Check the following parts: Qg5
No output from both ch. on all modes
Check the position of TAPE MONITOR switch
Check the function of protection relay
NG
Check the center voltage of the power amp (Center voltage: 0V)
OK
Check the protection circuit (Qk2~4)
OK
NG
No output from one side
Check the power voltage of each stages
Check the power amp
Check the position of BALANCE control
Check the following parts: ICi1
Check the following parts ICi1, Qi1,2

ADJUSTMENTS

TEST EQUIPMENTS

RF signal generator . . . . . RF-SG
Oscilloscope . . . . . scope
Solid state volt meter (input impedance: more than 1MΩ). . SSVM
FM stereo generator . . . . . MPX-SG
Frequency counter
Distortion meter

NOTE

*Tuning dial is set to the proper point corresponding to no radio stations.
*RF-SG is set to the lowest response possible on oscilloscope.
*The output level of RF-SG is made a 6 dB drop by the dummy ant.
*The input level 60 dB means 66 dB on RF-SG.
*Repeat TRACKING adjustment several times and confirm the reception of broadcasting.
*Test point is shown in the schematic diagram.

No.	ALIGN	TEST EQUIPMENTS		RECEIVER SETTING	OUTPUT INDICATOR	ADJUSTMENT POINTS	REMARKS
		CONNECTION	SETTING				
FM SECTION							
1	IF	RF-SG to ANT terminal via dummy ant.	98 MHz (60 dB) 1 kHz (Mod) 75 kHz (Dev)	98 MHz	SSVM & scope to REC jack (L)	Tg5	Maximum deflection
2		–	–	–	T meter	Tg6 (bottom)	Make the pointer position in the center of the meter
3		RF-SG to ANT terminal via dummy ant.	98 MHz (60dB) 1 kHz (Mod) 75 kHz (Dev)	98 MHz	SSVM & scope to REC jack (L)	Tg6 (top)	Maximum deflection & minimum distortion
4	OUTPUT	dittd	98 MHz 1 kHz (Mod) 75 kHz (Dev) 60 dB (Input)	98 MHz	ditto	–	Confirm output voltage is 700 mV
5	TRACKING	ditto	90 MHz 1 kHz (Mod) 75 kHz (Dev)	90 MHz	ditto	Tg1~4	Maximum deflection
6			108 MHz 1 kHz (Mod) 75 kHz (Dev)	108 MHz		CTg1~4	
7	VCO (Fig. 2)	–	–	–	Freq. counter via 20~30 dB amp or SSVM to TP1	VRg2	Counter indicates 76 kHz
8	SEPARATION	MPX-SG to RF-SG ext. jack	98 MHz 1 kHz (Mod) 68.25 kHz (Dev) L or R (Select) 60 dB (Input)	98 MHz	SSVM & scope to REC jack (R or L)	VRg1	Minimum cross-talk (Maximum separation)
9	DISTORTION	ditto	98 MHz 1 kHz (Mod) 68.25 kHz (Dev) L (Select) 60 dB (Input)	98 MHz	SSVM, scope & distortion meter to REC jack (L)	Tg5	Minimum distortion
AM SECTION							
1	IF	RF-SG to ANT terminal via dummy ant.	1000 kHz 400 Hz, 30% (Mod) 100 dB	1000 kHz	SSVM & scope to REC jack (L)	CFg4	Maximum deflection
2	TRACKING	ditto	600 kHz 400 Hz, 30% (Mod) 100 dB	600 kHz	ditto	Tg7 Bar antenna	ditto
3			1400 kHz 400 Hz, 30% (Mod) 100 dB	1400 kHz		CTg5, 6	
AUDIO SECTION							
1	BIAS	–	–	VOLUME is its min.	Volt meter or B31-0125-05 connected across No. 6 (23) and No. 13 (16) terminal of POWER AMP.	VRe1, 2	Meter indicates 40 mV. (Fig. 3)

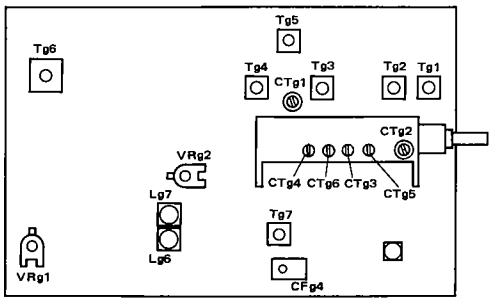


Fig. 1 Parts Location of Tuner Unit

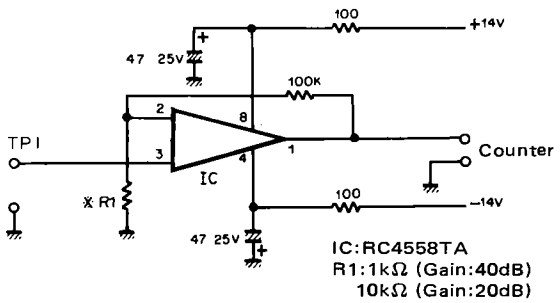


Fig. 2 20 ~ 30 dB Amp

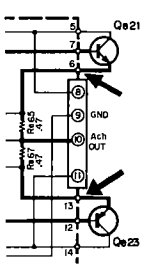


Fig. 3 Bias Current Adj. Points

Symbol ☆ : new parts

Ref. No.	U.S.A. (K)	Canada (P)	PX (U)	Europe (W)	Scandinavia (L)	England (T)	General Export (M_1)	Audio Club (M_2)	Description
C2	C90-0145-05	C91-0001-05	C91-0023-05	CK45E3D-103PMU	CK45E3D-103PMU	CK45E3D-103PMU	C91-0023-05	C91-0023-05	Capacitor 0.01μF
R1	RC05GF2H-225K	RC05GF2H-225K	–	–	–	–	–	–	Carbon resistor 2.2MΩ ±10% 1/2W
–	–	–	A03-0217-01	–	–	–	–	–	Cabinet
–	A20-1065-03	A20-1065-03	A20-1102-03	A20-1065-03	A20-1065-03	A20-1065-03	A20-1065-03	A20-1087-03	Panel ass'y ☆
–	A23-0660-18	A23-0660-18	A23-0661-18	A23-0662-08	A23-0662-08	A23-0674-08	A23-0661-18	A23-0661-18	Rear panel
–	A50-0049-01	A50-0049-01	–	A50-0049-01	A50-0049-01	A50-0049-01	A50-0049-01	A50-0049-01	Case holding plate x 2
–	A52-0020-03	A52-0020-03	–	A52-0020-03	A52-0020-03	A52-0020-03	A52-0020-03	A52-0020-03	Top plate
–	B01-0108-04	B01-0108-04	–	B01-0108-04	B01-0108-04	B01-0108-04	B01-0108-04	B01-0110-04	Side panel x 2
–	B07-0187-03	B07-0187-03	–	B07-0187-03	B07-0187-03	B07-0187-03	B07-0187-03	B07-0187-03	Holding plate escutcheon x 2
–	B07-0192-04	B07-0192-04	–	B07-0192-04	B07-0192-04	B07-0192-04	B07-0192-04	B07-0192-04	Panel holding plate x 2
–	B10-0210-03	B10-0210-03	B10-0210-03	B10-0210-03	B10-0210-03	B10-0211-03	B10-0210-03	B10-0215-03	Front glass
–	B46-0056-00	B46-0055-00	B46-0050-00	–	–	–	–	–	Warranty card
–	–	–	B46-0051-00	–	–	–	–	–	Warranty card
–	B50-1517-00	B50-1517-00	B50-1572-00	B50-1517-00	B50-1517-00	B50-1518-00	B50-1517-00	B50-1550-00	Instruction manual
–	–	–	B59-0018-00	–	–	–	–	–	Kenwood service stations' list
–	–	–	D32-0075-04	D32-0075-04	D32-0075-04	–	D32-0075-04	D32-0075-04	Switch stopper
–	E03-0002-05	E03-0002-05	E03-0002-05	–	–	–	E03-0002-05	E03-0002-05	AC outlet x 3
–	–	–	–	E08-0226-05	E08-0226-05	–	–	–	DIN antenna terminal (FM)
–	–	–	–	E08-0227-05	E08-0227-05	–	–	–	DIN antenna terminal (AM)
–	E30-0181-05	E30-0181-05	E30-0515-05	E30-0580-05	E30-0585-05	040-0304-05	E30-0515-05	E30-0515-05	Power cord
F1	F05-6024-05	F05-6024-05	F05-6021-05	F05-6321-05	F05-6321-05	–	F05-6021-05	F05-6021-05	Fuse (6A or 6.3AT 250V)
F2	–	–	F05-3022-05	F05-3121-05	F05-3121-05	–	F05-3022-05	F05-3022-05	Fuse (3A or 3.15AT 250V)
–	H01-1630-04	H01-1631-04	H01-1638-04	H01-1631-04	H01-1631-04	H01-1632-04	H01-1630-04	H01-1636-04	Carton case (inside) ☆
–	–	H03-0551-04	–	H03-0552-04	H03-0552-04	H03-0553-04	–	–	Carton case (outside) ☆
–	H10-1467-02	H10-1467-02	H10-1469-02	H10-1467-02	H10-1467-02	H10-1467-02	H10-1467-02	H10-1467-02	Polystyrene foamed fixture (Left)
–	H10-1468-02	H10-1468-02	H10-1470-02	H10-1468-02	H10-1468-02	H10-1468-02	H10-1468-02	H10-1468-02	Polystyrene foamed fixture (Right)
–	H20-0440-04	H20-0440-04	H20-0440-04	H20-0440-04	H20-0440-04	H20-0440-04	H20-0415-04	H20-0440-04	Polyethylene cover
–	–	–	–	–	–	–	H40-0004-04	–	Anti-rust paper
–	J02-0073-04	J02-0049-14	–	J02-0049-14	J02-0049-14	J02-0049-14	J02-0049-14	J02-0049-14	Leg x 4
–	J42-0072-05	J42-0072-05	J41-0017-05	J41-0017-05	J42-0074-05	J42-0074-05	J41-0017-05	J41-0017-05	Power cord bushing
–	L01-1161-05	L01-1161-05	L01-1165-05	L01-1166-05	L01-1166-05	L01-1167-05	L01-1165-05	L01-1165-05	Power transformer ☆
–	N08-0126-05	N08-0126-05	–	N08-0126-05	N08-0126-05	N08-0126-05	N08-0126-05	N08-0126-05	Dress screw (4 x 20) x 8
–	–	–	S31-2001-05	S31-2001-05	S31-2001-05	–	S31-2001-05	S31-2001-05	Slide switch (Power voltage selector)
–	X00-1780-11	X00-1780-11	X00-1780-82	X00-1782-72	X00-1782-72	X00-1780-52	X00-1780-82	X00-1780-82	Power supply unit (B)
–	X05-1320-11	X05-1320-11	X05-1320-11	X05-1320-12	X05-1320-12	X05-1320-12	X05-1320-11	X05-1320-11	Tuner unit
–	**X90-1260-11**	**X90-1260-11**	**X90-1260-83**	**X90-1262-72**	**X90-1262-72**	**X90-1260-52**	**X90-1260-22**	**X90-1260-84**	**Tuner ass'y ☆**
C1	C90-0145-05	C90-0145-05	C91-0023-05	CK45E3D-103PMU	CK45E3D-103PMU	CK45E3D-103PMU	C91-0023-05	C91-0023-05	Ceramic capacitor 0.01μF 250WV
C5	–	–	–	CK45E3D-103PMU	CK45E3D-103PMU	CK45E3D-103PMU	–	–	Ceramic capacitor 0.01μF 250WV
–	F05-3021-05	F05-3021-05	F05-3022-05	F05-3122-05	F05-3122-05	F05-3122-05	F05-3022-05	F05-3022-05	Fuse (3A or 3.15AT)
S12	S33-2012-05	S33-2012-05	S33-2014-05	S33-2013-05	S33-2013-05	S33-2013-05	S33-2014-05	S33-2014-05	Lever switch

Symbol ☆ : new parts

Ref. No.	U.S.A. (K)	Canada (P)	PX (U)	Australia (X)	Europe (W)	Scandinavia (L)	England (T)	General Export (M_1)	Audio club (M_2)	Description
C2	C90-0145-05	C91-0001-05	C91-0023-05	C91-0023-05	CK45E3D-103PMU	CK45E3D-103PMU	CK45E3D-103PMU	C91-0023-05	C91-0023-05	Ceramic capacitor 0.01μF
R1	RC05GF2H-225K	RC05GF2H-225K	–	–	–	–	–	–	–	Carbon resistor 2.2MΩ ±10% 1/2W
–	–	–	A03-0217-01	–	–	–	–	–	–	Cabinet ☆
–	A20-1063-03	A20-1063-03	A20-1101-03	A20-1063-03	A20-1063-03	A20-1063-03	A20-1063-03	A20-1063-03	A20-1086-03	Panel ass'y ☆
–	A23-0660-18	A23-0660-18	A23-0661-08	A23-0661-08	A23-0662-08	A23-0662-08	A23-0674-08	A23-0661-08	A23-0661-08	Rear panel ☆
–	A50-0049-01	A50-0049-01	–	A50-0049-01	A50-0049-01	A50-0049-01	A50-0049-01	A50-0049-01	A50-0049-01	Case holding plate x 2 ☆
–	A52-0020-03	A52-0020-03	–	A52-0020-03	A52-0020-03	A52-0020-03	A52-0020-03	A52-0020-03	A52-0020-03	Top plate ☆
–	B01-0108-04	B01-0108-04	–	B01-0108-04	B01-0108-04	B01-0108-04	B01-0108-04	B01-0108-04	B01-0110-04	Side panel x 2 ☆
–	B07-0187-03	B07-0187-03	–	B07-0187-03	B07-0187-03	B07-0187-03	B07-0187-03	B07-0187-03	B07-0187-03	Holding plate escutcheon x 2 ☆
–	B07-0192-04	B07-0192-04	–	B07-0192-04	B07-0192-04	B07-0192-04	B07-0192-04	B07-0192-04	B07-0192-04	Panel holding plate x 2 ☆
–	B10-0208-03	B10-0208-03	B10-0208-03	B10-0208-03	B10-0208-03	B10-0208-03	B10-0209-03	B10-0208-03	B10-0214-03	Front glass ☆
–	B46-0056-00	B46-0055-10	B46-0050-00	–	–	–	–	–	–	Warranty card
–	–	–	B46-0051-00	–	–	–	–	–	–	Warranty card
–	B50-1515-00	B50-1515-00	B50-1571-00	B50-1515-00	B50-1515-00	B50-1515-00	B50-1515-00	B50-1516-00	B50-1549-00	Instruction manual ☆
–	–	–	B59-0018-00	–	–	–	–	–	–	Kenwood service stations' list
–	–	–	D32-0075-04	D32-0075-04	D32-0075-04	D32-0075-04	–	D32-0075-04	D32-0075-04	Switch stopper
–	E03-0002-05	E03-0002-05	E03-0002-05	E03-0002-05	–	–	–	E03-0002-05	E03-0002-05	AC outlet x 3
–	–	–	–	–	E08-0226-05	E08-0226-05	–	–	–	DIN antenna terminal (FM)
–	–	–	–	–	E08-0227-05	E08-0227-05	–	–	–	DIN antenna terminal (AM)
–	E30-0181-05	E30-0181-05	E30-0545-05	E30-0185-05	E30-0459-05	E30-0585-05	040-0304-05	E30-0545-05	E30-0545-05	Power cord
F1	F05-5021-05	F05-5021-05	F05-5022-05	F05-5022-05	F05-5025-05	F05-5025-05	–	F05-5022-05	F05-5022-05	Fuse (5A or 5AT 250V)
F2	–	–	F05-2521-05	F05-2521-05	F05-2525-05	F05-2525-05	F05-2525-05	F05-2521-05	F05-2521-05	Fuse (2.5A or 2.5AT 250V)
–	H01-1633-04	H01-1634-04	H01-1639-04	H01-1633-04	H01-1634-04	H01-1634-04	H01-1635-04	H01-1633-04	H01-1637-04	Carton case (inside) ☆
–	–	H03-0548-04	–	–	H03-0549-04	H03-0549-04	H03-0550-04	–	–	Carton case (outside) ☆
–	H10-1467-02	H10-1467-02	H10-1469-02	H10-1467-02	H10-1467-02	H10-1467-02	H10-1467-02	H10-1467-02	H10-1467-02	Polystyrene foamed fixture ☆
–	H10-1468-02	H10-1468-02	H10-1470-02	H10-1468-02	H10-1468-02	H10-1468-02	H10-1468-02	H10-1468-02	H10-1468-02	Polystyrene foamed fixture ☆
–	H20-0440-04	H20-0440-04	H20-0440-04	H20-0440-04	H20-0440-04	H20-0440-04	H20-0440-04	H20-0415-04	H20-0440-04	Polyethylene cover
–	–	–	–	–	–	–	–	H40-0004-04	–	Anti-rust paper
–	J02-0073-04	J02-0049-14	–	J02-0049-14	J02-0049-14	J02-0049-14	J02-0049-14	J02-0049-14	J02-0049-14	Leg x 4
–	J42-0072-05	J42-0072-05	J42-0072-05	J42-0074-05	J41-0017-05	J42-0074-05	J42-0074-05	J42-0072-05	J42-0072-05	Power cord bushing
–	L01-1151-05	L01-1151-05	L01-1155-05	L01-1155-05	L01-1156-05	L01-1156-05	L01-1157-05	L01-1155-05	L01-1155-05	Power transformer ☆
–	N08-0126-05	N08-0126-05	–	N08-0126-05	N08-0126-05	N08-0126-05	N08-0126-05	N08-0126-05	N08-0126-05	Dress screw x 8
–	–	–	S31-2001-05	S31-2001-05	S31-2001-05	S31-2001-05	–	S31-2001-05	S31-2001-05	Slide switch
–	X00-1780-10	X00-1780-10	X00-1780-81	X00-1780-81	X00-1782-71	X00-1782-71	X00-1780-51	X00-1780-81	X00-1780-81	Power supply unit (B) ☆
–	X05-1320-11	X05-1320-11	X05-1320-11	X05-1320-12	X05-1320-12	X05-1320-12	X05-1320-12	X05-1320-11	X05-1320-12	Tuner unit ☆
–	**X90-1260-10**	**X90-1260-10**	**X90-1260-81**	**X90-1260-21**	**X90-1262-71**	**X90-1262-71**	**X90-1260-51**	**X90-1260-21**	**X90-1260-82**	**Tuner ass'y ☆**
C1	C90-0145-05	C90-0145-05	C91-0023-05	C91-0023-05	CK45E3D-103PMU	CK45E3D-103PMU	CK45E3D-103PMU	C91-0023-05	C91-0023-05	Ceramic capacitor 0.01μF 250WV
C5	–	–	–	–	CK45E3D-103PMU	CK45E3D-103PMU	CK45E3D-103PMU	–	–	Ceramic capacitor 0.01μF 250WV
–	F05-3021-05	F05-3021-05	F05-3022-05	F05-3022-05	F05-3122-05	F05-3122-05	F05-3122-05	F05-3022-05	F05-3022-05	Fuse (3A or 3.15A)
S12	S33-2012-05	S33-2012-05	S33-2014-05	S33-2014-05	S33-2013-05	S33-2013-05	S33-2013-05	S33-2014-05	S33-2014-05	Lever switch ☆

PARTS LIST

TOTAL Symbol ☆ : new parts

Ref. No.	Parts No.	Description	Re-marks
		CAPACITOR	
C3,4	C90-0332-05 or	Electrolytic 12,000μF 63WV	
	C90-0335-05	Electrolytic 12,000μF 63WV (KR-7600)	
C3,4	C90-0331-05 or	Electrolytic 8,200μF 56WV	
	C90-0334-05	Electrolytic 8,200μF 56WV (KR-6600)	
		RESISTOR	
R2,3	RN14AB3D471J	Metal film 470Ω ±5% 2W	
R4,5	PD14BY2E333J	Carbon 33kΩ ±5% 1/4W	
		SWITCH	
S11	S01-2039-05	Rotary switch	☆
		MISCELLANEOUS	
–	B07-0183-05	Escutcheon	
–	B07-0184-04	Lever switch escutcheon (A)	☆
–	B07-0185-04	Lever switch escutcheon (B)	
–	B21-0010-05	Dial pointer	☆
–	B42-0009-04	Passed sticker	
–	D15-0155-13	Dial pulley (A)	
–	D15-0156-13	Dial pulley (B)	
–	D21-0421-04	Shaft (263mm, TAPE)	☆
–	D21-0422-04	Shaft (248mm, S.P)	☆
–	D22-0031-04	Coupler x 3	
–	E21-0002-08	Screw terminal x 5	
–	E21-0003-05	Speaker terminal x 3	
–	E22-0216-05	Lug-type terminal strips (101)	
–	E29-0026-05	Terminal lugs x 2	
–	E31-0030-05	Mini-connector (LEFT)	☆
–	E31-0031-05	Mini-connector (RIGHT)	☆
–	G01-0314-04	Dial spring	
–	H25-0078-00	Instruction bag	
–	J12-0084-04	Shorted pin (15mm) x 2	
–	J19-0306-05	Lead wire holder x 4	
–	J19-0501-04	Dial pointer lead wire holder	☆
–	J19-0503-04	Bar antenna lead wire holder	☆
–	J32-0228-04	Panel holder boss x 2	☆
–	K21-0317-04	Knob (Tuning)	☆
–	K23-0243-03	Knob (Sel, Tone, Vol) x 7	
–	K23-0247-04	Knob (Mic)	☆
–	K27-0040-04	Knob (Lever) x 3	☆
–	K27-0041-04	Knob (Push SW) x 8 (KR-7600)	☆
–	K27-0041-04	Knob (Push SW) x 6 (KR-6600)	☆
–	L19-0009-05	Balun transformer	
–	T90-0002-05	FM indoor antenna	
–	T90-0085-05	AM bar antenna	
–	X00-1790-10	Power supply unit (C)	
–	X07-1450-10	Power amp unit (KR-6600)	☆
–	X07-1450-11	Power amp unit (KR-7600)	
–	X08-1510-10	Preamp unit	
–	351-0003-14	Dial cord (200cm, 0.5φ)	

TUNER ASS'Y (X90-1260-)

Ref. No.	Parts No.	Description	Re-marks
		CAPACITOR	
C6	CK45F1H473Z	Ceramic 0.01μF +100%,-0%	
		RESISTOR	
R6	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	
R7	PD14BY2E220J	Carbon 22Ω ±5% 1/4W	
		SEMICONDUCTOR	
D1	V11-0271-05	Diode 1S2076	
		SWITCH	
S1	S01-2038-05	Rotary	
S5~10	S42-2008-05	Pushbutton (3 key) x 2(KR-7600)	
S3,4	S42-2009-05	Pushbutton (2 key) (KR-7600)	
S3~5,7~9	S42-2009-05	Pushbutton (2 key) x 3(KR-6600)	
		MISCELLANEOUS	
–	A21-0265-03	Dress board (KR-6600)	☆
–	A21-0266-03	Dress board (KR-7600)	☆
–	A70-0103-05	Lamp ass'y	☆
–	B07-0155-04	Pushbutton switch ring x 6	
–	B20-0384-03	Dial calibrations	☆
–	B30-0069-05	Pilot lamp (8V 300mA)	
–	B31-0248-05	S meter	☆
–	B31-0249-05	T meter	☆
–	D15-0073-14	Middle pulley	
–	D15-0160-04	Small pulley	
–	D20-0126-03	Dial shaft ass'y	☆
–	E11-0060-15	Phone jack	
–	E11-0065-05	Mic jack	☆
–	J19-0306-05	Lead holder	
–	J42-0071-04	Small bushing	
–	J90-0078-03	Dial pointer rail	
–	X00-1770-10	Power supply unit (A)	☆
–	X08-1490-10	Mic amp unit	☆
–	X11-1320-10	Control unit (KR-7600)	☆
–	X11-1320-11	Control unit (KR-6600)	☆
–	X13-2350-10	Sub-muting unit	☆

POWER SUPPLY (A) (X00-1770-10)

Ref. No.	Parts No.	Description	Re-marks
		CAPACITOR	
Ck1	CE04W1E331	Electrolytic 330μF 25WV	
Ck2	CE04W1E101	Electrolytic 100μF 25WV	
Ck3	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Ck4	CE04W1C221	Electrolytic 220μF 16WV	
Ck5	CE04W1E101	Electrolytic 100μF 25WV	
Ck6	CE04W1E331	Electrolytic 330μF 25WV	
Ck7	CE04W1C221	Electrolytic 220μF 16WV	
Ck8	CQ93M1H104K	Mylar 0.1μF ±10%	
Ck9	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
		RESISTOR	
Rk1	RN14AB3D560JB	Metal film 56Ω ±5% 2W	
Rk2	RC05GF2H272K	Carbon 2.7kΩ ±10% 1/2W	
Rk3	RN14AB3A331JB	Metal film 330Ω ±5% 1W	
Rk4	RC05GF2H391K	Carbon 390Ω ±10% 1/2W	
Rk5	RC05GF2H272K	Carbon 2.7kΩ ±10% 1/2W	
Rk6	PD14BY2E473J	Carbon 47kΩ ±5% 1/4W	

PARTS LIST

Ref. No.	Parts No.	Description	Remarks
Rk7	PD14BY2E123J	Carbon 12kΩ ±5% 1/4W	
Rk8	PD14BY2E332J	Carbon 3.3kΩ ±5% 1/4W	
Rk9,10	PD14BY2E563J	Carbon 56kΩ ±5% 1/4W	
Rk11	PD14BY2E333J	Carbon 33kΩ ±5% 1/4W	
Rk12	PD14BY2E682J	Carbon 6.8kΩ ±5% 1/4W	
Rk13	PD14BY2E102J	Carbon 1kΩ ±5% 1/4W	
Rk14	PD14BY2E223J	Carbon 22kΩ ±5% 1/4W	
Rk15	PD14BY2E822J	Carbon 8.2kΩ ±5% 1/4W	
Rk16	PD14BY2E223J	Carbon 22kΩ ±5% 1/4W	
Rk17	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	
Rk18	RN14AB3D121JB	Metal film 120Ω ±5% 2W	
	SEMICONDUCTOR		
Qk1	V03-0343-05	Transistor 2SC1419 (B) or (C)	
Qk2	V01-0084-05	Transistor 2SA733 (Q) or (R)	
Qk3,4	V03-0271-05	Transistor 2SC1345 (E) or (F)	
Qk5	V01-0181-05	Transistor 2SA885 (Q) or (R)	
Dk1	V11-0434-05	Zener diode EQA01-24R	
Dk2	V11-0254-05	Zener diode YZ-140	
Dk3	V11-0434-05	Zener diode EQA01-24R	
Dk4	V11-0273-05	Diode 1S2076	

POWER SUPPLY (B) (X00-1780-)

Ref. No.	Parts No.	Description	Remarks
F1	Destinations' list	Fuse	
F2	Destinations' list	Fuse	
—	J13-0039-05	Fuse clip x 4 (X00-1782-71,72)	
—	J13-0039-05	Fuse clip x 2 (X00-1780-51,52)	
—	J13-0041-05	Fuse clip x 2 (X00-1780-10,11)	
—	J13-0041-05	Fuse clip x 4 (X00-1780-81,-82)	

POWER SUPPLY (C) (X00-1790-10)

Ref. No.	Parts No.	Description	Remarks
	CAPACITOR		
Cr1,2	CQ93M1H104M	Mylar 0.1μF ±20%	
Cr3	CE04W1A470NP	Non-pole electrolytic 47μF 10WV	
Cr4	CE04W1A101	Electrolytic 100μF 10WV	
Cr5~8	CK45E2H103P	Ceramic 0.01μF 500WV	
	RESISTOR		
Rr1~3	RN14AB3D100JB	Metal film 10Ω ±5% 2W	
Rr4	RN14AB3A471JB	Metal film 470Ω ±5% 1W	
Rr5	RN14AB3D100JB	Metal film 10Ω ±5% 2W	
Rr6	PD14BY2E223J	Carbon 22kΩ ±5% 1/4W	
Rr7	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	
Rr8	PD14BY2E223J	Carbon 22kΩ ±5% 1/4W	
Rr9	PD14BY2E331J	Carbon 330Ω ±5% 1/4W	
Rr10	PD14BY2E271J	Carbon 270Ω ±5% 1/4W	
	SEMICONDUCTOR		
Dr1~3	V11-0219-05	Diode V06B	
Dr4	V11-0256-05	Diode S2HB-20	
	COIL/RELAY		
Lr1,2	L39-0080-15	Coil	
RLr1	S51-4030-05	Relay	

TUNER (X05-1320-11, -12)

Ref. No.	Parts No.	Description	Remarks
	CAPACITOR		
Cg1	CC45SG1H150K	Ceramic 15pF ±10%	
Cg2~4	CK45F1H223Z	Ceramic 0.022μF +80%,-0%	
Cg5	CC45SG1H180K	Ceramic 18pF ±10%	
Cg6	CC45SG1H150K	Ceramic 15pF ±10%	
Cg7	CC45SL1H120K	Ceramic 12pF ±10%	
Cg8	CC45SL1H100K	Ceramic 10pF ±10%	
Cg9	CC45SL1H221K	Ceramic 220pF ±10%	
Cg10	CC45PG1H020C	Ceramic 2pF ±0.25pF	
Cg11~13	CK45F1H223Z	Ceramic 0.022μF +80%,-0%	
Cg14	CC45RH1H180K	Ceramic 18pF ±10%	
Cg15	CC45SG1H100K	Ceramic 10pF ±10%	
Cg16	CC45SG1H390K	Ceramic 39pF ±10%	
Cg17	CC45SG1H150K	Ceramic 15pF ±10%	
Cg18	CK45F1H223Z	Ceramic 0.022μF +80%,-20%	
Cg19~23	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg25	CC45SL1H101K	Ceramic 100pF ±10%	
Cg26	CE04W1E4R7	Electrolytic 4.7μF 25WV	
Cg27	CE04W1H010	Electrolytic 1μF 50WV	
Cg28,29	CK45F1H473Z	Ceramic 0.047μF +80%,-20%	
Cg30,31	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg32	CE04W1E3R3	Electrolytic 3.3μF 25WV	
Cg33	CK45F1H473Z	Ceramic 0.047μF +80%,-20%	
Cg34	CE04W1C100	Electrolytic 10μF 16WV	
Cg35	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg36	CK45F1H473Z	Ceramic 0.047μF +80%,-20%	
Cg37	CQ93M1H122K	Mylar 1200pF ±10%	
Cg38	CE04W1C221	Electrolytic 220μF 16WV	
Cg39~40	CE04W1C100	Electrolytic 10μF 16WV	
Cg41,42	CQ93M1H122J	Mylar 1200pF ±5%	
Cg43	CQ93M1H473K	Mylar 0.047μF ±10%	
Cg44	CQ09S1H361J	Polystyrene 360pF ±5%	
Cg45	CS15E1E3R3M	Tantalum 3.3μF 25WV	
Cg46	CS15E1E1R5M	Tantalum 1.5μF 25WV	
Cg47	CQ92M1H334MDA	Mylar 0.33μF ±20%	
Cg48,49	CE04W1E3R3	Electrolytic 3.3μF 25WV	
Cg50	CC45SL1H150K	Ceramic 15pF ±10%	
Cg51	CQ09S1H361J	Polystyrene 360pF ±5%	
Cg52,53	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg54,55	CE04W1C101	Electrolytic 100μF 16WV	
Cg56,57	CC45SL1H150K	Ceramic 15pF ±10%	
Cg58,59	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg60	CC45SL1H470K	Ceramic 47pF ±10%	
Cg61	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg62	CE04W1C100	Electrolytic 10μF 16WV	
Cg63	CE04W1H010	Electrolytic 1μF 50WV	
Cg64	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg65	CQ93M1H102K	Mylar 0.001μF ±10%	
Cg66	CK45F1H103Z	Ceramic 0.01μF +80%,-20%	
Cg67	CQ93M1H683K	Mylar 0.068μF ±10%	
Cg68	CC45SL1H331K	Ceramic 330pF ±10%	
Cg69,70	CQ93M1H222J	Mylar 2200pF ±5%	-11
	CQ93M1H102J	Mylar 1000pF ±5%	-12
Cg71,72	CS15E1ER47	Tantalum 0.47μF 25WV	
Cg73	CE04W1C470	Electrolytic 47μF 16WV	
Cg74	CK45F1H473Z	Ceramic 0.047μF +80%,-20%	
	RESISTOR		
Rg1	PD14CY2E683J	Carbon 68kΩ ±5% 1/4W	
Rg2	PD14CY2E124J	Carbon 120kΩ ±5% 1/4W	
Rg3	PD14CY2E820J	Carbon 82Ω ±5% 1/4W	
Rg4	PD14CY2E223J	Carbon 22kΩ ±5% 1/4W	
Rg5	PD14CY2E332J	Carbon 3.3kΩ ±5% 1/4W	
Rg6	PD14BY2E102J	Carbon 1kΩ ±5% 1/4W	
Rg7	PD14BY2E101J	Carbon 100Ω ±5% 1/4W	
Rg8	PD14BY2E123J	Carbon 12kΩ ±5% 1/4W	
Rg9	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	
Rg10	PD14CY2E272J	Carbon 2.7kΩ ±5% 1/4W	
Rg11	PD14BY2E561J	Carbon 560Ω ±5% 1/4W	

PARTS LIST

Ref. No.	Parts No.	Description	Remarks
Rg12	PD14BY2E332J	Carbon 3.3kΩ ±5% 1/4W	
Rg13	PD14BY2E561J	Carbon 560Ω ±5% 1/4W	
Rg14	PD14BY2E331J	Carbon 330Ω ±5% 1/4W	
Rg15	PD14BY2E100J	Carbon 10Ω ±5% 1/4W	
Rg16	PD14BY2E391J	Carbon 390Ω ±5% 1/4W	
Rg17	PD14BY2E331J	Carbon 330Ω ±5% 1/4W	
Rg20	PD14BY2E332J	Carbon 3.3kΩ ±5% 1/4W	
Rg21	PD14BY2E183J	Carbon 18kΩ ±5% 1/4W	
Rg22	PD14BY2E123J	Carbon 12kΩ ±5% 1/4W	
Rg23	PD14BY2E102J	Carbon 1kΩ ±5% 1/4W	
Rg24	PD14BY2E822J	Carbon 8.2kΩ ±5% 1/4W	
Rg25	PD14BY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rg26	PD14BY2E273J	Carbon 27kΩ ±5% 1/4W	
Rg27	PD14BY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rg28	PD14BY2E473J	Carbon 47kΩ ±5% 1/4W	
Rg29	PD14BY2E101J	Carbon 100Ω ±5% 1/4W	
Rg30	PD14BY2E333J	Carbon 33kΩ ±5% 1/4W	
Rg31	PD14BY2E153J	Carbon 15kΩ ±5% 1/4W	
Rg32	PD14BY2E681J	Carbon 680Ω ±5% 1/4W	
Rg33	PD14BY2E163J	Carbon 16kΩ ±5% 1/4W	
Rg34,35	PD14BY2E272J	Carbon 2.7kΩ ±5% 1/4W	
Rg36,37	PD14BY2E243J	Carbon 24kΩ ±5% 1/4W	
Rg38	PD14BY2E163J	Carbon 16kΩ ±5% 1/4W	
Rg39	PD14BY2E562J	Carbon 5.6kΩ ±5% 1/4W	
Rg40	PD14BY2E223J	Carbon 22kΩ ±5% 1/4W	
Rg41	PD14BY2E102J	Carbon 1kΩ ±5% 1/4W	
Rg42	PD14BY2E104J	Carbon 100kΩ ±5% 1/4W	
Rg43~46	PD14BY2E332J	Carbon 3.3kΩ ±5% 1/4W	
Rg47	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	
Rg48	PD14BY2E101J	Carbon 100Ω ±5% 1/4W	
Rg49	PD14BY2E682J	Carbon 6.8kΩ ±5% 1/4W	
Rg50	PD14BY2E473J	Carbon 47kΩ ±5% 1/4W	
Rg51	PD14BY2E562J	Carbon 5.6kΩ ±5% 1/4W	
Rg52	PD14BY2E122J	Carbon 1.2kΩ ±5% 1/4W	
Rg53	PD14BY2E272J	Carbon 2.7kΩ ±5% 1/4W	
Rg54,55	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	
Rg56	PD14BY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rg57,58	PD14BY2E153J	Carbon 15kΩ ±5% 1/4W	
Rg59	PD14BY2E564J	Carbon 560kΩ ±5% 1/4W	
SEMICONDUCTOR			
Qg1	V09-0070-05	FET 3SK45 (B) or (C)	
Qg2	V03-0092-05	Transistor 2SC381 (O) or	
	V03-0444-05	Transistor 2SC1674 (L) or (K)	
Qg3	V03-0357-05	Transistor 2SC1342 (A) or (B)	
Qg4	V03-0092-05	Transistor 2SC381 (O) or	
	V03-0444-05	Transistor 2SC1674 (L) or (K)	
Qg5	V03-0270-05	Transistor 2SC945 (Q)	
Dg1~3	V11-0271-05	Diode 1S2076 or	
	V11-0076-05	Diode 1S1555	
ICg1	V30-0133-05	IC HA-1137W	
ICg2	V30-0155-05	IC HA-1196	
ICg3	V30-0134-05	IC HA-1151	
COIL/TRANS/FILTER			
Tg1	L31-0372-05	FM-ANT coil	
Tg2	L31-0373-05	FM-RF1 coil	
Tg3	L31-0374-05	FM-RF2 coil	
Tg4	L32-0192-05	FM-OSC coil	
Tg5	L30-0257-05	FM-IFT	
Tg6	L30-0205-05	FM-IFT	
Tg7	L32-0181-05	AM-OSC coil	
Tg8	L30-0284-05	AM-IFT	
Lg1	L40-1091-41	Ferri-inductor (1mH)	
Lg2	L40-1805-61	Ferri-inductor (18μH)	
Lg3,4	L40-1512-03	Ferri-inductor (150μH)	
Lg5	L40-1092-44	Ferri-inductor (1μH)	
Lg6	L79-0031-05	Low-pass filter	☆
Lg8,9	L40-1021-03	Ferri-inductor (1mH)	

Ref. No.	Parts No.	Description	Remarks
CFg1~3	L72-0034-05	FM ceramic filter	
CFg4	L72-0036-05	AM ceramic filter	
POTENTIOMETER			
VRg1	R12-5017-05	PC trimmer 200kΩ (B) SEPARATION	
VRg2	R12-3030-05	PC trimmer 10kΩ (B) VCO	
MISCELLANEOUS			
—	C01-0192-05	Variable capacitor	
CTg1	C05-0055-05	Ceramic trimmer	

POWER AMP (X07-1450-10, -11)

Ref. No.	Parts No.	Description	Remarks
CAPACITOR			
Ce1,2	CQ93M1H474M	Mylar 0.47μF ±20%	
Ce3,4	CC45SL1H101K	Ceramic 100pF ±10%	
Ce5,6	CE04W1H010	Electrolytic 1μF 50WV	
Ce7,8	CE04W1A470	Electrolytic 47μF 10WV	
Ce9,10	CC45SL1H050D	Ceramic 5pF ±0.5pF	
Ce11,12	CC45SL1H100D	Ceramic 10pF ±0.5pF	
Ce13,14	CE04W1H470	Electrolytic 47μF 50WV	
Ce15,16	CE04W0J101	Electrolytic 100μF 6.3WV	
Ce17,18	CC45SL1H101K	Ceramic 100pF ±10%	
Ce19,20	CE04W1H101	Electrolytic 100μF 50WV	-10
	CE04W1J101	Electrolytic 100μF 63WV	-11
Ce21~24	CE04W1A470	Electrolytic 47μF 10WV	
Ce25~28	CC45SL1H101K	Ceramic 100pF ±10%	
Ce29	CK45F1H103Z	Ceramic 0.01μF +80%,−20%	
RESISTOR			
Re1,2	PD14BY2E334J	Carbon 330kΩ ±5% 1/4W	
Re3,4	PD14BY2E562J	Carbon 5.6kΩ ±5% 1/4W	
Re5,6	PD14BY2E393J	Carbon 39kΩ ±5% 1/4W	
Re7,8	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	-10
	PD14BY2E153J	Carbon 15kΩ ±5% 1/4W	-11
Re9~12	PD14BY2E100J	Carbon 10Ω ±5% 1/4W	
Re13,14	PD14BY2E152J	Carbon 1.5kΩ ±5% 1/4W	
Re15,16	PD14BY2E472J	Carbon 4.7kΩ ±5% 1/4W	-10
	PD14BY2E362J	Carbon 3.6kΩ ±5% 1/4W	-11
Re17,18	RC05GF2H332K	Carbon 3.3kΩ 10% 1/2W	
Re19,20	PD14BY2E393J	Carbon 39kΩ ±5% 1/4W	
Re21,22	PD14BY2E330J	Carbon 33Ω ±5% 1/4W	
Re23,24	PD14BY2E101J	Carbon 100Ω ±5% 1/4W	
Re25,26	RC05GF2H222K	Carbon 2.2kΩ ±10% 1/2W	
Re27,28	RC05GF2H472K	Carbon 4.7kΩ ±10% 1/2W	
Re29,30	PD14BY2E182J	Carbon 1.8kΩ ±5% 1/4W	
Re31,32	PD14BY2E392J	Carbon 3.9kΩ ±5% 1/4W	
Re33,34	PD14BY2E182J	Carbon 1.8kΩ ±5% 1/4W	
Re35~38	PD14BY2E121J	Carbon 120Ω ±5% 1/4W	
Re39,40	PD14BY2E101JB	Carbon 100Ω ±5% 1/4W	
Re41~44	PD14BY2E271J	Carbon 270Ω ±5% 1/4W	
Re45~48	PD14BY2E182J	Carbon 1.8kΩ ±5% 1/4W	
Re49~52	PD14BY2E123J	Carbon 12kΩ ±5% 1/4W	
Re53~56	PD14BY2E100JB	Carbon 10Ω ±5% 1/4W	
Re57~60	PD14BY2E181JB	Carbon 180Ω ±5% 1/4W	
Re61~64	PD14BY2E4R7JB	Carbon 4.7Ω ±5% 1/4W	
Re65~68	R92-0111-05	Cement 0.47Ω ±5% 3W	
SEMICONDUCTOR			
Qe1~4	V01-0190-05	Transistor 2SA841 (BL)	-10
	V01-0189-05	Transistor 2SA872 (E)	-11
Qe5,6	V03-0439-05	Transistor 2SC1885 (Q) or (R)	
Qe7,8	V01-0157-05	Transistor 2SA620WB	
Qe9,10	V01-0084-05	Transistor 2SA733 (Q) or (R)	

PARTS LIST

Ref. No.	Parts No.	Description	Remarks
Qe11~14	V03-0270-05	Transistor 2SC945 (Q) or (R)	
Qe15,16	V01-0157-05	Transistor 2SA733 (Q) or (R)	
Qe17,18	V03-0454-05	Transistor 2SC1567 (Q) or (R)	-10
	V03-0468-05	Transistor 2SC1913 (Q) or (R)	-11
Qe19,20	V01-0187-05	Transistor 2SA794 (Q) or (R)	-10
	V01-0188-05	Transistor 2SA913 (Q) or (R)	-11
Qe21,22	V03-0417-05	Transistor 2SC1403 (R) or (Y)	-10
	V03-0455-05	Transistor 2SC1116 (R) or (Y)	-11
Qe23,24	V01-0158-05	Transistor 2SA745 (R) or (Y)	-10
	V01-0176-05	Transistor 2SA747 (R) or (Y)	-11
De1,2	V11-0386-05	Zener diode EQA01-20R	-10
	V11-0433-05	Zener diode EQA01-30R	-11
De3~6	V11-0271-05	Diode 1S2076	
THe1,2	V22-0027-05	Thermister 5TP-41L	
POTENTIOMETER			
VRe1,2	R12 1007-05	PC trimmer 1kΩ BIAS	
MISCELLANEOUS			
—	E02-0209-05	Transistor socket x 4	
—	E40-0433-05	Pin ass'y (right angle)	☆
—	E40-0435-05	Pin ass'y (right angle)	☆
—	E40-0470-05	Mini-connector separator (verticality)	☆
—	F20-0066-05	Mica insulating plate	

MIC AMP (X08-1490-10)

Ref. No.	Parts No.	Description	Remarks
CAPACITOR			
Cs1	CE04W1H010	Electrolytic 1μF 50WV	
Cs2	CC45SL1H470K	Ceramic 47pF ±10%	
Cs3	CE04W1E3R3	Electrolytic 3.3μF 25WV	
Cs4	CC45SL1H101K	Ceramic 100pF ±10%	
Cs5,7,8	CE04W1H010	Electrolytic 1μF 50WV	
Cs9,10	CE04W1E4R7	Electrolytic 4.7μF 25WV	
Cs11,12	CE04W1E101	Electrolytic 100μF 25WV	
Cs13	CK45F1H473Z	Ceramic 0.047μF +80%,-20%	
RESISTOR			
Rs1,2	PD14CY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rs3	PD14CY2E184J	Carbon 180kΩ ±5% 1/4W	
Rs4,5	PD14CY2E104J	Carbon 100kΩ ±5% 1/4W	
Rs6	PD14CY2E681J	Carbon 680Ω ±5% 1/4W	
Rs7	PD14BY2E823J	Carbon 82kΩ ±5% 1/4W	
Rs8	PD14CY2E103J	Carbon 10kΩ ±5% 1/4W	
Rs11,12	PD14CY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rs13,14	PD14CY2E224J	Carbon 220kΩ ±5% 1/4W	
Rs15,16	PD14CY2E472J	Carbon 4.7kΩ ±5% 1/4W	
Rs17,18	PD14CY2E104J	Carbon 100kΩ ±5% 1/4W	
Rs19,20	PD14CY2E101JB	Carbon 100Ω ±5% 1/4W	
SEMICONDUCTOR			
Qs1	V01-0146-05	Transistor 2SA640 (E) or (F)	
Qs2	V03-0309-05	Transistor 2SC1345 (D) or (E)	
Qs3,4	V03-0271-05	Transistor 2SC1345 (E)	
POTENTIOMETER			
VRs1,S15	R06-4030-05	Potentiometer with switch	

PREAMP (X08-1510-10)

Ref. No.	Parts No.	Description	Remarks
CAPACITOR			
Cd1,2	CE04W1E3R3MBR	Electrolytic 3.3μF 25WV	
Cd3,4	CE04W1A470	Electrolytic 47μF 10WV	
Cd5,6	CQ93M1H272J	Mylar 0.0027μF ±5%	
Cd7,8	CQ93M1H103J	Mylar 0.01μF ±5%	
Cd9,10	CC45SL1H100K	Ceramic 10pF ±10%	
Cd11,12	CE04W1E100	Electrolytic 10μF 25WV	
Cd13,14	CE04W1E470	Electrolytic 47μF 25WV	
Cd15	CE04W1A470NP	Non-pole electrolytic 47μF 10WV	
Cd16~19	CK45D1H561M	Ceramic 560pF ±20%	
Cd20,21	CC45SL1H470K	Ceramic 47pF ±10%	
Cd22	CE04W1H4R7	Electrolytic 4.7μF 50WV	
Cd23,24	CK45F1H403Z	Ceramic 0.04μF +80%,-20%	
Cd25,26	CC45SL1H470K	Ceramic 47pF ±10%	
RESISTOR			
Rd1~4	PD14CY2E104J	Carbon 100kΩ ±5% 1/4W	
Rd5,6	PD14BY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rd7,8	PD14CY2E561J	Carbon 560Ω ±5% 1/4W	
Rd9,10	PD14CY2E114J	Carbon 110kΩ ±5% 1/4W	
Rd11,12	PD14CY2E273J	Carbon 27kΩ ±5% 1/4W	
Rd13,14	PD14CY2E334J	Carbon 330kΩ ±5% 1/4W	
Rd15,16	RC05GF2H106K	Carbon 10MΩ ±10% 1/2W	
Rd17,18	PD14CY2E563J	Carbon 56kΩ ±5% 1/4W	
Rd19,20	PD14BY2E102JB	Carbon 1kΩ ±5% 1/4W	
Rd21	PD14CY2E154J	Carbon 150kΩ ±5% 1/4W	
Rd22	PD14CY2E224J	Carbon 220kΩ ±5% 1/4W	
Rd23	PD14CY2E394J	Carbon 390kΩ ±5% 1/4W	
Rd24	PD14CY2E472J	Carbon 4.7kΩ ±5% 1/4W	
Rd25,26	PD14CY2E563J	Carbon 56kΩ ±5% 1/4W	
Rd27,28	PD14BY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rd29,30	PD14BY2E104J	Carbon 100kΩ ±5% 1/4W	
Rd31,32	PD14BY2E394J	Carbon 390kΩ ±5% 1/4W	
Rd33~36	PD14BY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Rd37,38	PD14BY2E224J	Carbon 220kΩ ±5% 1/4W	
Rd39,40	PD14CY2E224J	Carbon 220kΩ ±5% 1/4W	
Rd41	PD14CY2E104J	Carbon 100kΩ ±5% 1/4W	
Rd42	PD14BY2E153J	Carbon 15kΩ ±5% 1/4W	
Rd43	PD14CY2E103J	Carbon 10kΩ ±5% 1/4W	
Rd44,45	PD14BY2E222J	Carbon 2.2kΩ ±5% 1/4W	
SEMICONDUCTOR			
Qd1	V03-0270-05	Transistor 2SC945	
Qd2,3	V09-0096-05	Transistor 2SK68 (M) or (N)	
Qd4	V01-0084-05	Transistor 2SA733	
ICd1,2	V30-0122-05	IC TA7136P	
Dd1,2	V11-0051-05	Diode 1N60	
Dd3	V11-0271-05	Diode 1S2076	
SWITCH			
S1	S29-1086-05	Slide rotary	
S2	S29-1087-05	Slide rotary	
MISCELLANEOUS			
—	E06-0507-05	DIN connector 5P	
—	E13-0114-05	Pin jack x 19	

CONTROL (X11-1320-10,-11)

Ref. No.	Parts No.	Description	Remarks
CAPACITOR			
Ci1,2	CQ93M1H102K	Mylar 0.001μF ±10%	
Ci3,4	CQ93M1H563K	Mylar 0.056μF ±10%	
Ci5,6	CE04W1H3R3	Electrolytic 3.3μF 50WV	
Ci7,8	CC45SL1H101K	Ceramic 100pF ±10%	

PARTS LIST

Ref. No.	Parts No.	Description	Remarks
Ci9,10	CC45SL1H470K	Ceramic 47pF ±10%	
Ci11,12	CC45SL1H330K	Ceramic 33pF ±10%	
Ci13,14	CE04W1H3R3	Electrolytic 3.3μF 50WV	
Ci15,16	CE04W1C470	Electrolytic 47μF 16WV	
Ci17,18	CE04W1E4R7	Electrolytic 4.7μF 25WV	
Ci19,20	CQ93M1H183K	Mylar 0.018μF ±10%	
Ci21,22	CQ93M1H154K	Mylar 0.15μF ±10%	
Ci23,24	CQ93M1H392K	Mylar 0.0039μF ±10%	
Ci25,26	CQ93M1H273K	Mylar 0.027μF ±10%	
Ci27,28	CQ93M1H154K	Mylar 0.15μF ±10%	
Ci29,30	CQ93M1H333K	Mylar 0.033μF ±10%	
Ci31~34	CC45SL1H220K	Ceramic 22pF ±10%	
Ci35,36	CQ93M1H822K	Mylar 0.0082μF ±10%	
Ci37,38	CQ93M1H222K	Mylar 0.0022μF ±10%	
Ci39,40	CE04W1H010	Electrolytic 1μF 50WV	
Ci41,42	CE04W1E330	Electrolytic 33μF 25WV	
Ci43,44	CE04W1A101	Electrolytic 100μF 10WV	
Ci45,46	CE04W1E100	Electrolytic 10μF 25WV	
Ci47,48	CQ93M1H223K	Mylar 0.022μF ±10%	
Ci49,50	CQ93M1H153K	Mylar 0.015μF ±10%	
Ci51,52	CE04W1E221	Electrolytic 220μF 25WV	
Ci53,54	CC45SL1H070D	Ceramic 7pF ±0.5pF	
RESISTOR			
Ri1,2	PD14CY2E105J	Carbon 1MΩ ±5% 1/4W	
Ri3,4	PD14CY2E823J	Carbon 82kΩ ±5% 1/4W	
Ri5,6	PD14CY2E682J	Carbon 6.8kΩ ±5% 1/4W	
Ri7,8	PD14CY2E152J	Carbon 1.5kΩ ±5% 1/4W	
Ri9,10	PD14CY2E564J	Carbon 560kΩ ±5% 1/4W	
Ri11,12	PD14CY2E562J	Carbon 5.6kΩ ±5% 1/4W	
Ri13,14	PD14CY2E824J	Carbon 820kΩ ±5% 1/4W	
Ri15,16	PD14CY2E332J	Carbon 3.3kΩ ±5% 1/4W	
Ri17,18	PD14CY2E301J	Carbon 300Ω ±5% 1/4W	
Ri19,20	PD14CY2E124J	Carbon 120kΩ ±5% 1/4W	-10
Ri21,22	PD14CY2E682J	Carbon 6.8kΩ ±5% 1/4W	
Ri23,24	PD14CY2E152J	Carbon 1.5kΩ ±5% 1/4W	
Ri25,26	PD14CY2E332J	Carbon 3.3kΩ ±5% 1/4W	
Ri27,28	PD14CY2E103J	Carbon 10kΩ ±5% 1/4W	
Ri29,30	PD14CY2E621J	Carbon 620Ω ±5% 1/4W	
Ri31~34	PD14CY2E243J	Carbon 24kΩ ±5% 1/4W	
Ri35~38	PD14CY2E393J	Carbon 39kΩ ±5% 1/4W	-10
Ri39~42	PD14CY2E184J	Carbon 180kΩ ±5% 1/4W	
Ri43,44	PD14CY2E562J	Carbon 5.6kΩ ±5% 1/4W	-10
Ri45~48	PD14CY2E473J	Carbon 47kΩ ±5% 1/4W	
Ri49,50	PD14CY2E562J	Carbon 5.6kΩ ±5% 1/4W	-10
Ri51~54	PD14CY2E184J	Carbon 180kΩ ±5% 1/4W	
Ri55~58	PD14CY2E393J	Carbon 39kΩ ±5% 1/4W	
Ri59~62	PD14CY2E183J	Carbon 18kΩ ±5% 1/4W	
Ri63,64	PD14CY2E244J	Carbon 240kΩ ±5% 1/4W	
Ri65,66	PD14CY2E153J	Carbon 15kΩ ±5% 1/4W	
Ri67,68	PD14CY2E752J	Carbon 7.5kΩ ±5% 1/4W	
Ri69,70	PD14CY2E471J	Carbon 470Ω ±5% 1/4W	
Ri71,72	PD14CY2E222J	Carbon 2.2kΩ ±5% 1/4W	
Ri73,74	PD14CY2E105J	Carbon 1MΩ ±5% 1/4W	
Ri75,76	PD14BY2E391JB	Carbon 390Ω ±5% 1/4W	
Ri77,78	PD14CY2E152J	Carbon 1.5kΩ ±5% 1/4W	
SEMICONDUCTOR			
Qi1,2	V03-0271-05	Transistor 2SC1345 (E)	
ICi1	V30-0179-05	IC μPC1016C	
POTENTIOMETER			
VRi1	R06-5018-05	100kΩ (B) x 2 VOLUME	
VRi2	R01-5016-05	200kΩ (W) BALANCE	
Vi3,4	R06-4029-05	50kΩ (C) x 2 TONE	

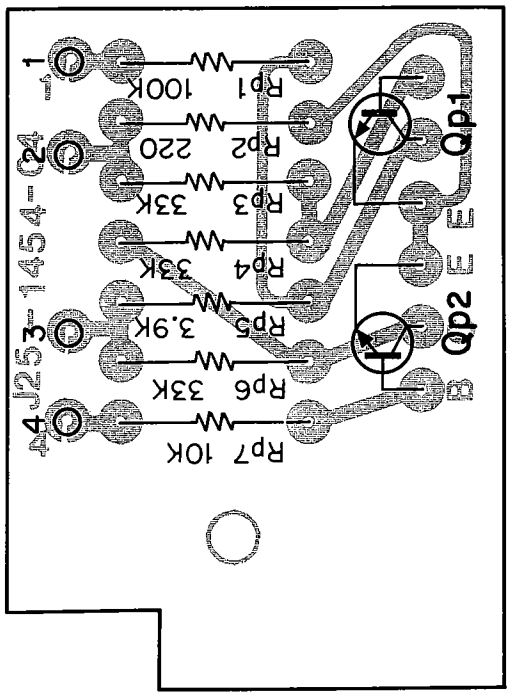
Ref. No.	Parts No.	Description	Remarks
SWITCH			
S13,14	S33-4004-05	Lever x 2	-10
	S33-4006-05	Lever x 2	-11

SUB-MUTING (X13-2350-10)

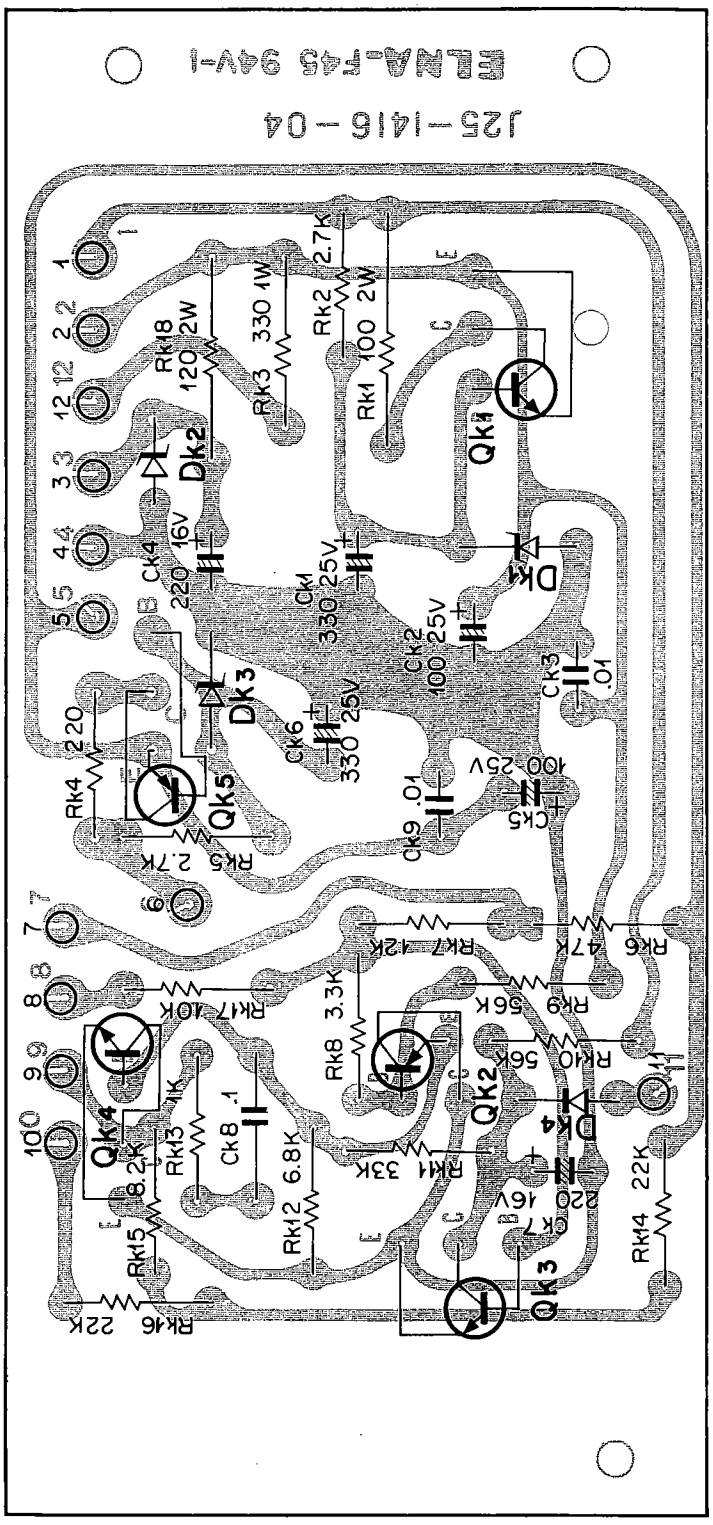
Ref. No.	Parts No.	Description	Remarks
RESISTOR			
Rp1	PD14BY2E104J	Carbon 100kΩ ±5% 1/4W	
Rp2	PD14BY2E221J	Carbon 220Ω ±5% 1/4W	
Rp3,4	PD14BY2E333J	Carbon 33kΩ ±5% 1/4W	
Rp5	PD14BY2E392J	Carbon 3.9kΩ ±5% 1/4W	
Rp6	PD14BY2E333J	Carbon 33kΩ ±5% 1/4W	
Rp7	PD14BY2E103J	Carbon 10kΩ ±5% 1/4W	
SEMICONDUCTOR			
Qp1,2	V03-0270-05	Transistor 2SC945	

PC BOARD

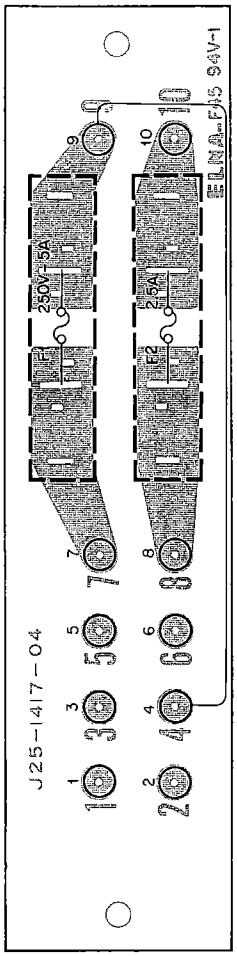
▼ SUB-MUTING (X13-2350-10)



▼ POWER SUPPLY (A) (X00-1770-10)

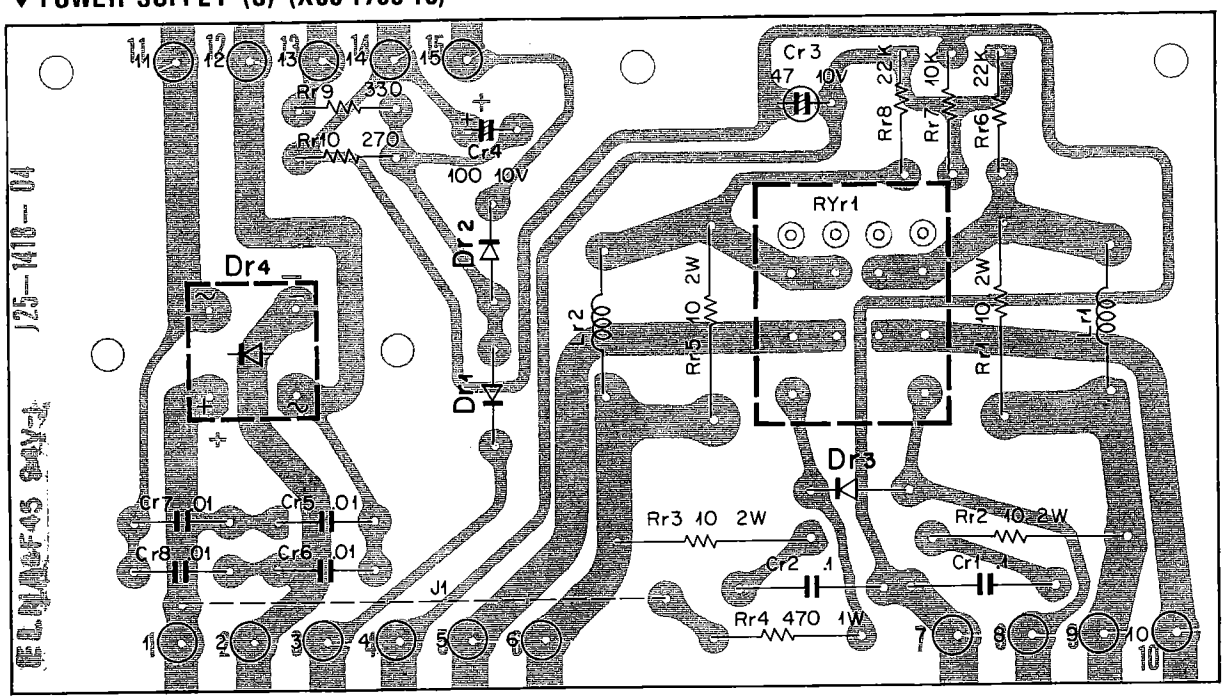


▼ POWER SUPPLY (B) (X00-1780-10)

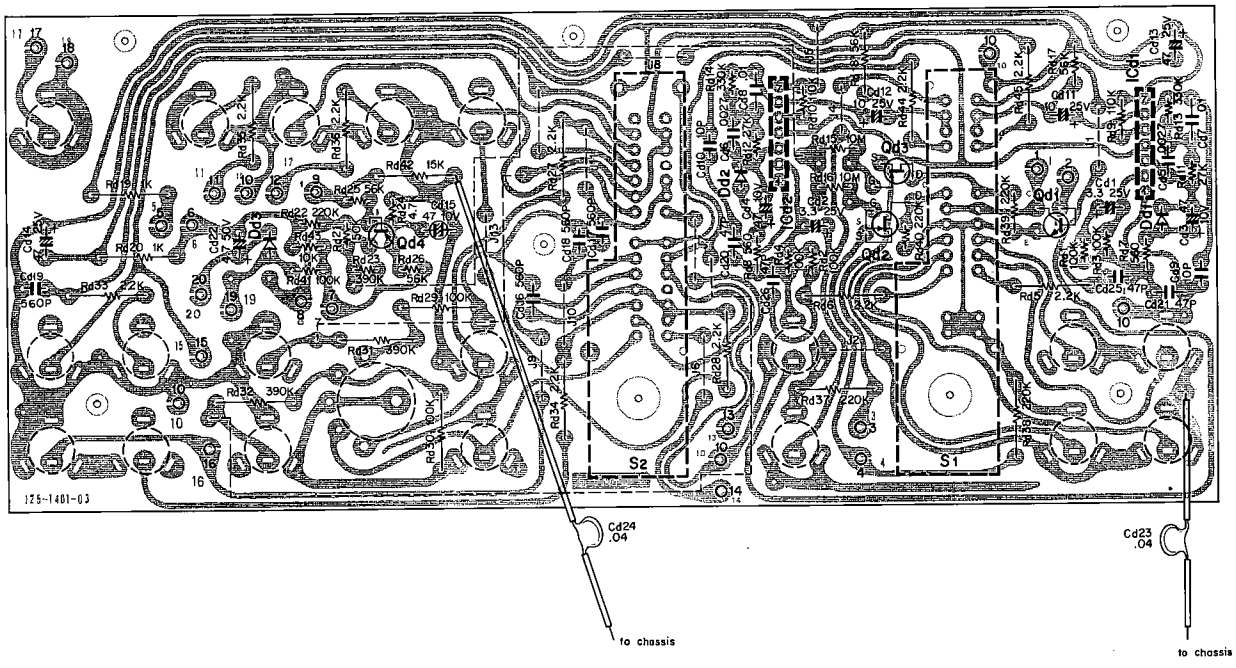


PC BOARD

▼ POWER SUPPLY (C) (X00-1790-10)

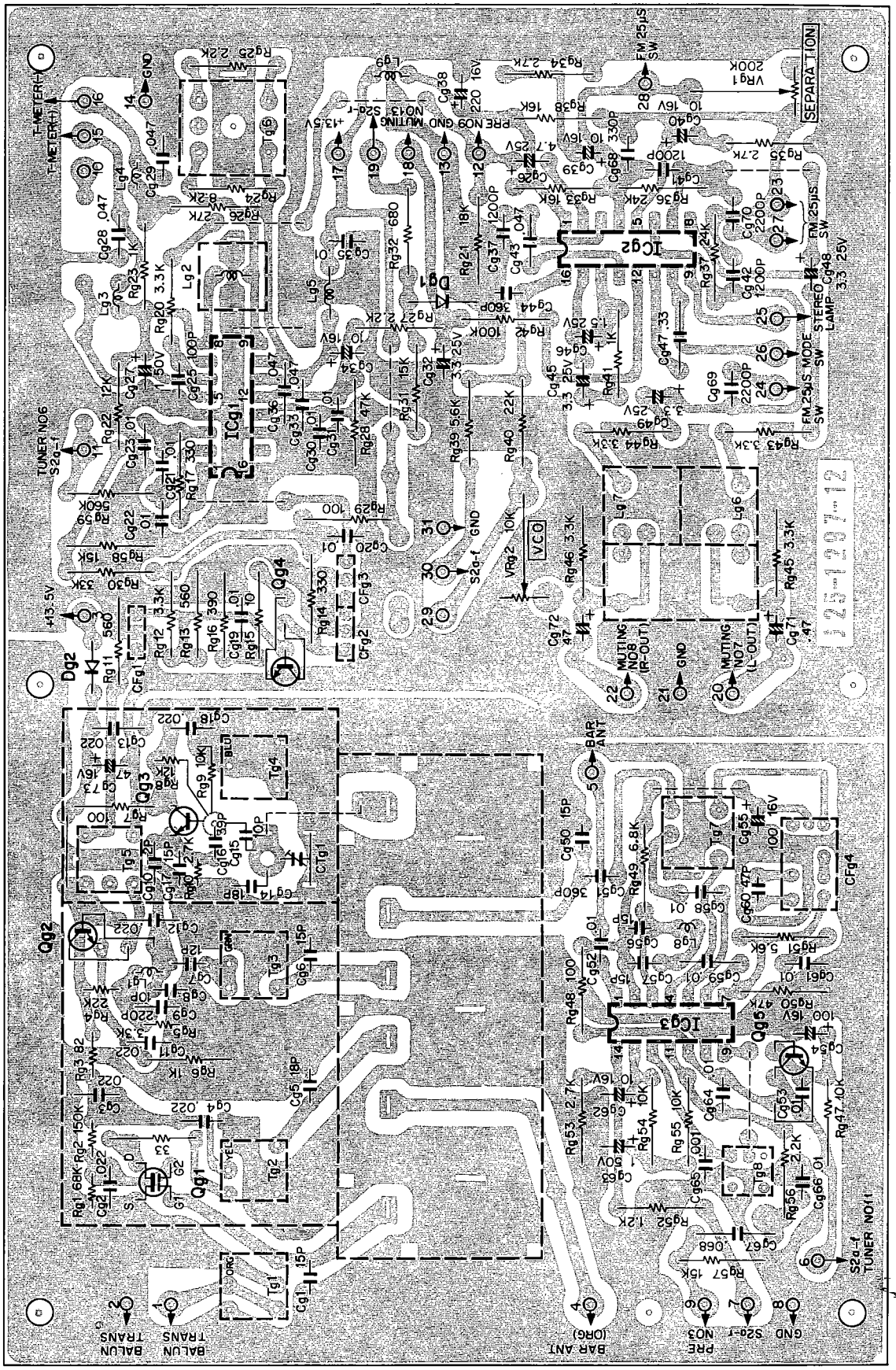


▼ PREAMP (X08-1510-10)



PC BOARD

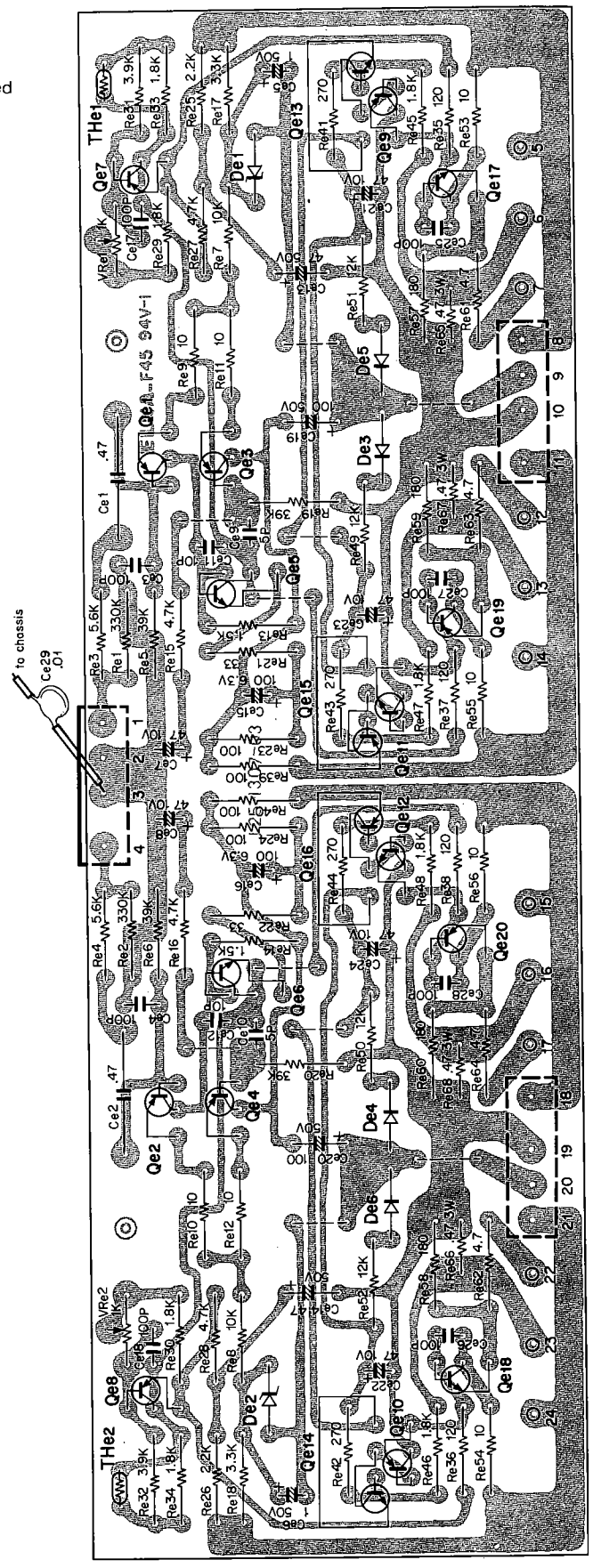
▶ **TUNER (X05-1320-11)**



PC BOARD

▶ POWER AMP (X07-1450-10)

The value of Ce19, 20, Re7, 8 and Re15, 16 are modified (See parts list.) in X07-1450-11 unit.

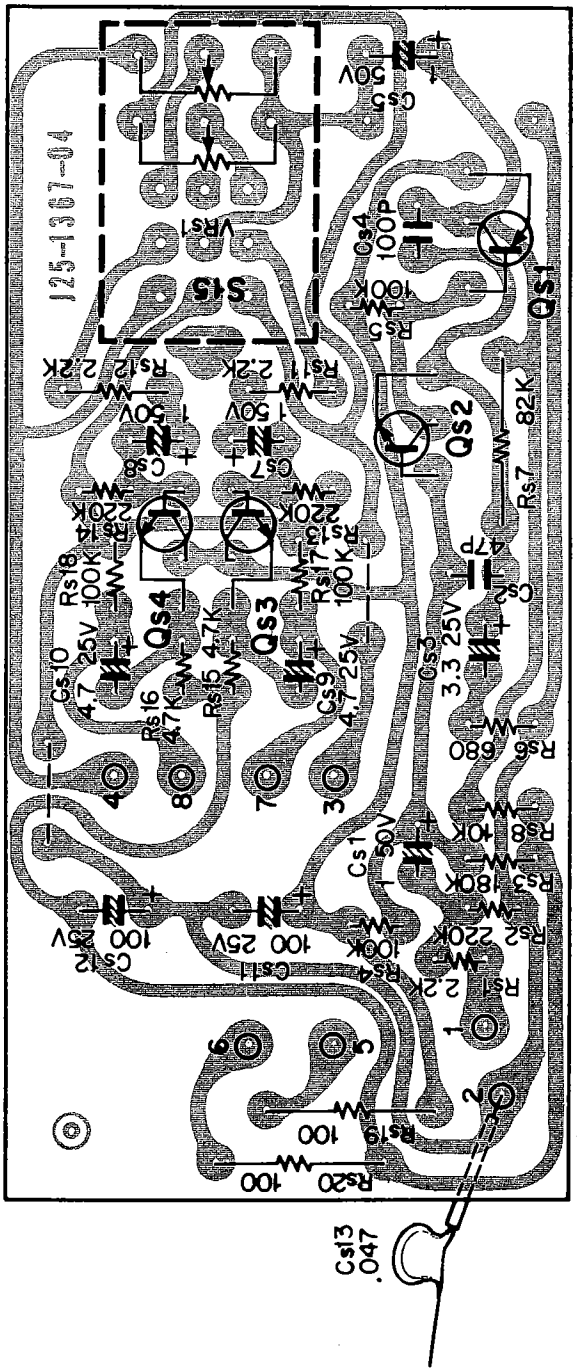


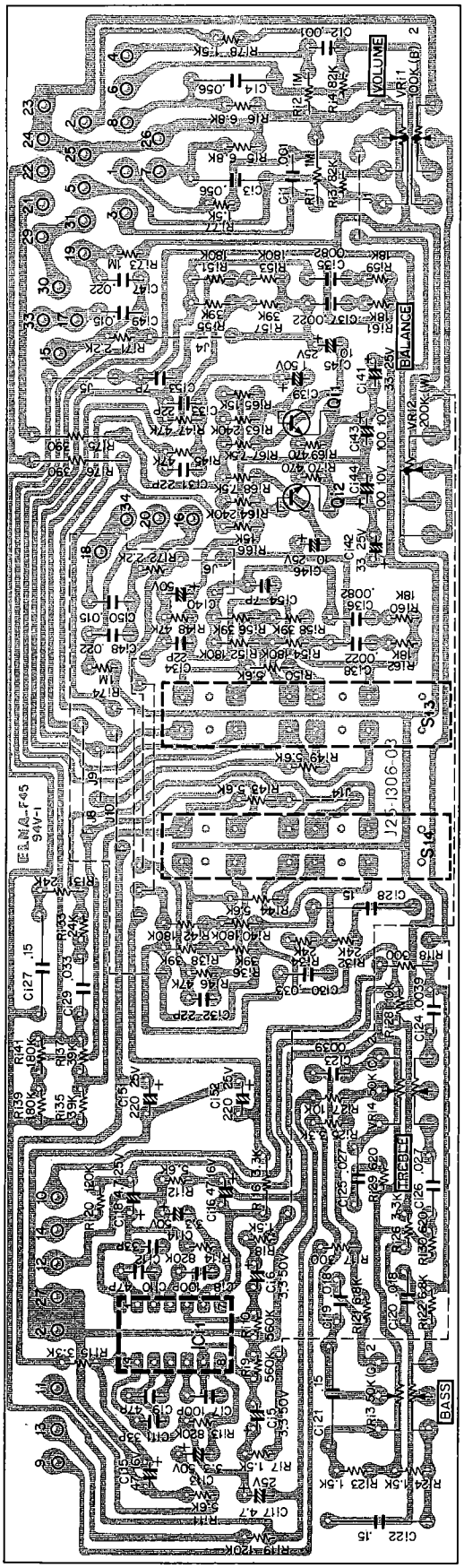
PC BOARD

▶ CONTROL AMP (X11-1320-10)

Ri19, 20, Ri35 ~ 38, Ri43, 44 and Ri49, 50 are eliminated in X11-1320-11 unit.

▼ MIC AMP (X08-1490-10)





SPECIFICATIONS

FM TUNER SECTION (IHF)

Usable Sensitivity	1.7 μV
50 dB Quieting Sensitivity	3.0 μV (Mono)
	37 μV (Stereo)
Signal to Noise Ratio at 1mV	75 dB (Mono)
	70 dB (Stereo)
T.H.Distortion at 1mV	0.15% (Mono)
	0.25% (Stereo)
Frequency Response	20 Hz to 15,000 Hz +0.5dB, −1.5 dB
Capture Ratio	1.5 dB
Alternate Channel Selectivity	80 dB
Spurious Response Ratio	85 dB
Image Response Ratio	85 dB
IF Response Ratio (Balanced)	100 dB
AM Suppression Ratio	65 dB
Stereo Separation	40 dB at 1,000 Hz, 35 dB from 50 Hz to 10,000 Hz
Subcarrier Product Ratio	65 dB
Antenna Impedance	300 ohms balanced & 75 ohms unbalanced
FM Frequency Range	88 MHz to 108 MHz 88.5 MHz to 108 MHz (FTZ approved)

AM TUNER SECTION

Usable Sensitivity (IHF)	20 μV
Signal to Noise Ratio	50 dB
Image Rejection	45 dB
Selectivity (IHF)	35 dB
IF Rejection	35 dB

POWER AMPLIFIER SECTION

56 watts per channel minimum, RMS at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.3% total harmonic distortion. (KR-6600)

70 watts per channel minimum, RMS at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.3% total harmonic distortion. (KR-7600)

Both Channel Driven	60 + 60 watts 8 ohms at 1,000 Hz (KR-6600)
	75 + 75 watts 8 ohms at 1,000 Hz (KR-7600)
	75 + 75 watts 4 ohms at 1,000 Hz (KR-6600)
	90 + 90 watts 4 ohms at 1,000 Hz (KR-7600)
Dynamic Power Output	280 watts (4 ohms) (KR-6600)
	320 watts (4 ohms) (KR-7600)
Total Harmonic Distortion	0.3% at rated power into 8 ohms 0.05% at 1W power into 8 ohms at 1,000 Hz
Intermodulation Distortion	0.3% at rated power into 8 ohms
(60 Hz: 7 kHz 4 : 1)	0.1% at 1W power into 8 ohms
Power Bandwidth	7 Hz to 55,000 Hz
Damping Factor	45 at 8 ohms
Speaker Impedance	Accept 4 ohms to 16 ohms

PRE AMPLIFIER SECTION

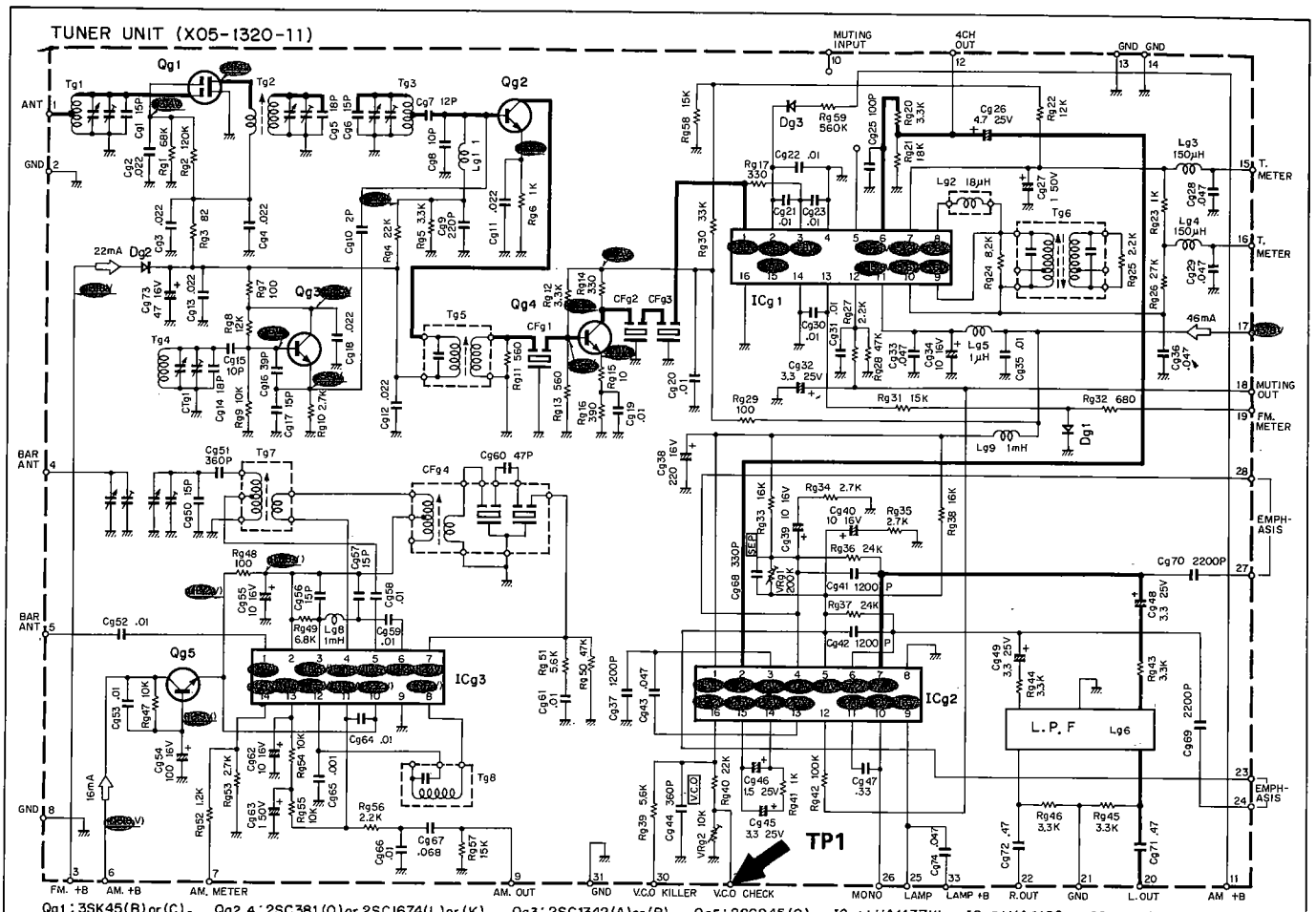
Input Sensitivity/Impedance/Signal to Noise Ratio (IHF A CURVE)		
Phono 1, 2		2.5 mV / 50 k ohms / 70 dB
Aux		150 mV / 50 k ohms / 90 dB
Tape		150 mV / 50 k ohms / 90 dB
Mic		1.5 mV / 50 k ohms / 65 dB
Maximum Input Level		
Phono		180mV (rms) T.H.D. 0.1% at 1,000 Hz
Output Level/Impedance		
Tape REC	**(Pin)**	150 mV / 100 ohms
	(Din)	30 mV / 80 k ohms
Frequency Response		
Phono		RIAA standard curve ±0.5 dB
Aux & Tape		20 Hz to 50,000 Hz $^{+0.5}_{-1.0}$ dB
Mic		70 Hz to 20,000 Hz $^{+0}_{-3.0}$ dB
Tape Control		
Base		±8 dB at 100 Hz
Treble		±8 dB at 10,000 Hz
Loudness Control (−30 dB)		+8 dB at 100 Hz, +5 dB at 10,000 Hz
Low Filter		−10 dB at 100 Hz
High Filter		−10 dB at 10 kHz
Acoustic	**800 Hz**	+6 dB +3 dB (KR-7600 only)
	500 Hz	+6 dB +3 dB (KR-7600 only)

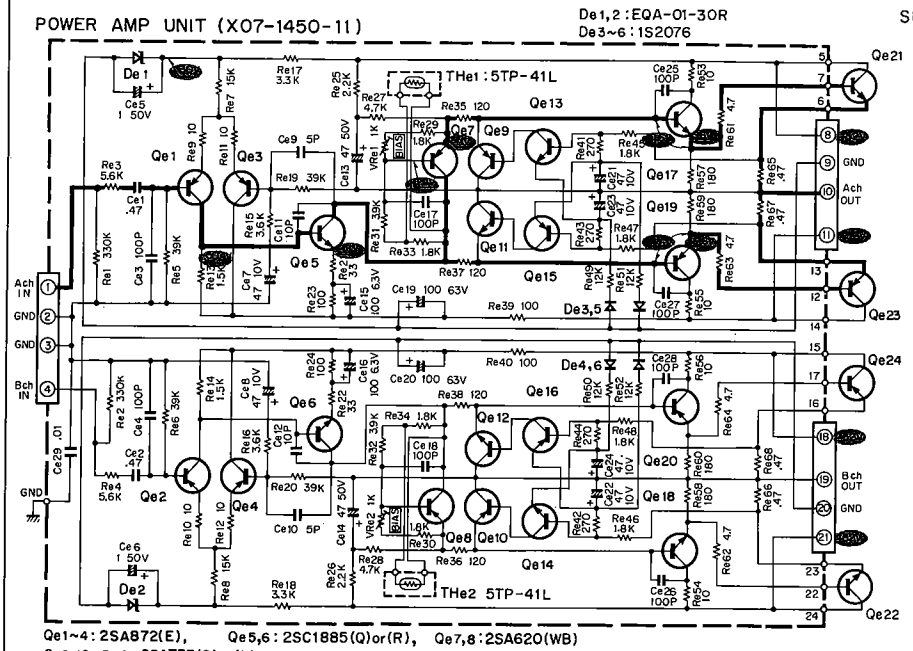
GENERAL

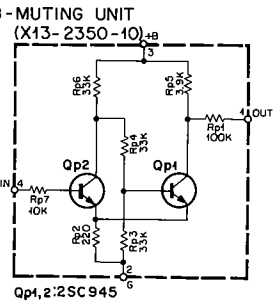
Power Requirement	AC 50/60 Hz 110~120V, 220~240V
Power Consumption	480 watts at full power (KR-6600)
	550 watts at full power (KR-7600)
AC Outlet	Switched 1, Unswitched 2
Dimensions	W 20-13/32" (518 mm)
	H 5-15/16" (151 mm)
	D 14-3/8" (365 mm)
	(Knob +26 mm)
Weight	35.9 lbs. (16.3 kg) (KR-6600)
	38.1 lbs. (17.3 kg) (KR-7600)

SCHEMATIC DIAGRAM(TUNER, POWER AMP AND MUTING)

NOTE: POWER AMP SCHEMATIC is for KR-7600.


TUNER UNIT (X05-1320-11)
Qg1 : 3SK45(B) or (C), Qg2,4 : 2SC381(O) or 2SC1674(L) or (K), Qg3 : 2SC1342(A) or (B), Qg5 : 2SC945(Q), ICg1 : HA1137W, ICg2 : HA1196, ICg3 : HA1151
Dg1~3 : 1S2076 or 1S1555

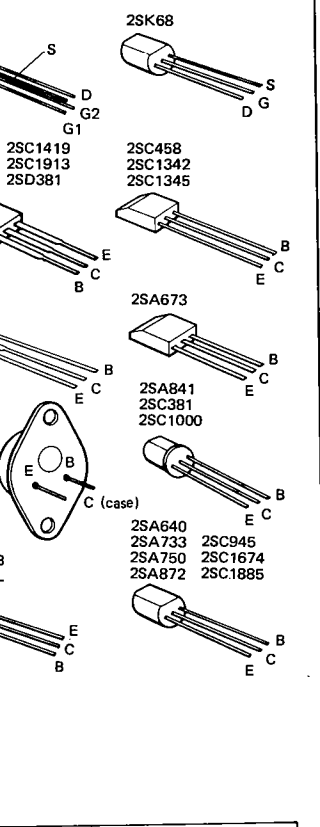




KR-7600

DC voltage is measured at FM stereo reception except ( ).
( ) voltage is measured at AM reception.

SCHEMATIC DIAGRAM(KR-7600)



uctor e	Substitutions
SUPPLY 0-10)	
Q) or (R) (B) or (C)	2SA794 —
0-11) O) Q) (A) or (B)) or (C) W	2SC1674 (L) or (K) 2SC458 (C), 2SC828 — — — —
AMP 0-10, -11) (WB) (Q) or (R)	2SA620 (WL) 2SA673, 2SA640 2SA747 2SB554 (R), (O) 2SA913, 2SB536 2SA750, 2SA872, 2SA763 — 2SB536 (2) 2SC1000, 2SC1345 2SD424 (R), (O) 2SC1116 2SC1913, 2SD381 2SC1904 2SD381 (2)
P 90-10) 5 P 10-10) P	2SA841, 2SA750 2SC1000 2SA673, 2SA640 2SC1000 — —
OL AMP 20-10, -11) 5 6C G 350-10)	2SC1000 — 2SC1000

Qk1 : 2SC1419(B)or(C), 2SC1345(E)or(F),
Qk2 : 2SA733(Q)or(R), Qk3,4 : 2SC1345(E)or(F), Qk5 : 2SA885(Q)or(R),
Dk1,3 : EQA-01-24R
Dk2 : YZ-140
Dk4 : 1S2076

Qd1 : 2SC945
Qd2,3 : 2SK68(M)or(N)
Qd4 : 2SA733
ICd 1,2 : TA7136P
Dd1,2 : 1N60
Dd3 : 1S2076

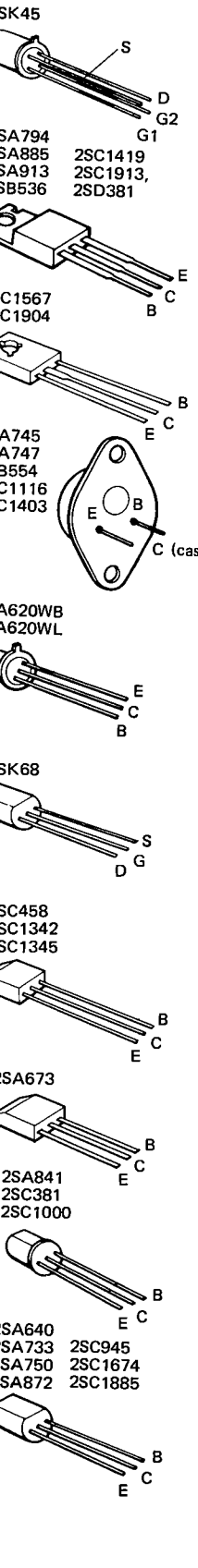
Qs1 : 2SA640(F)or(E)
Qs2 : 2SC1345(D)or(E)
Qs3,4 : 2SC1345(E)

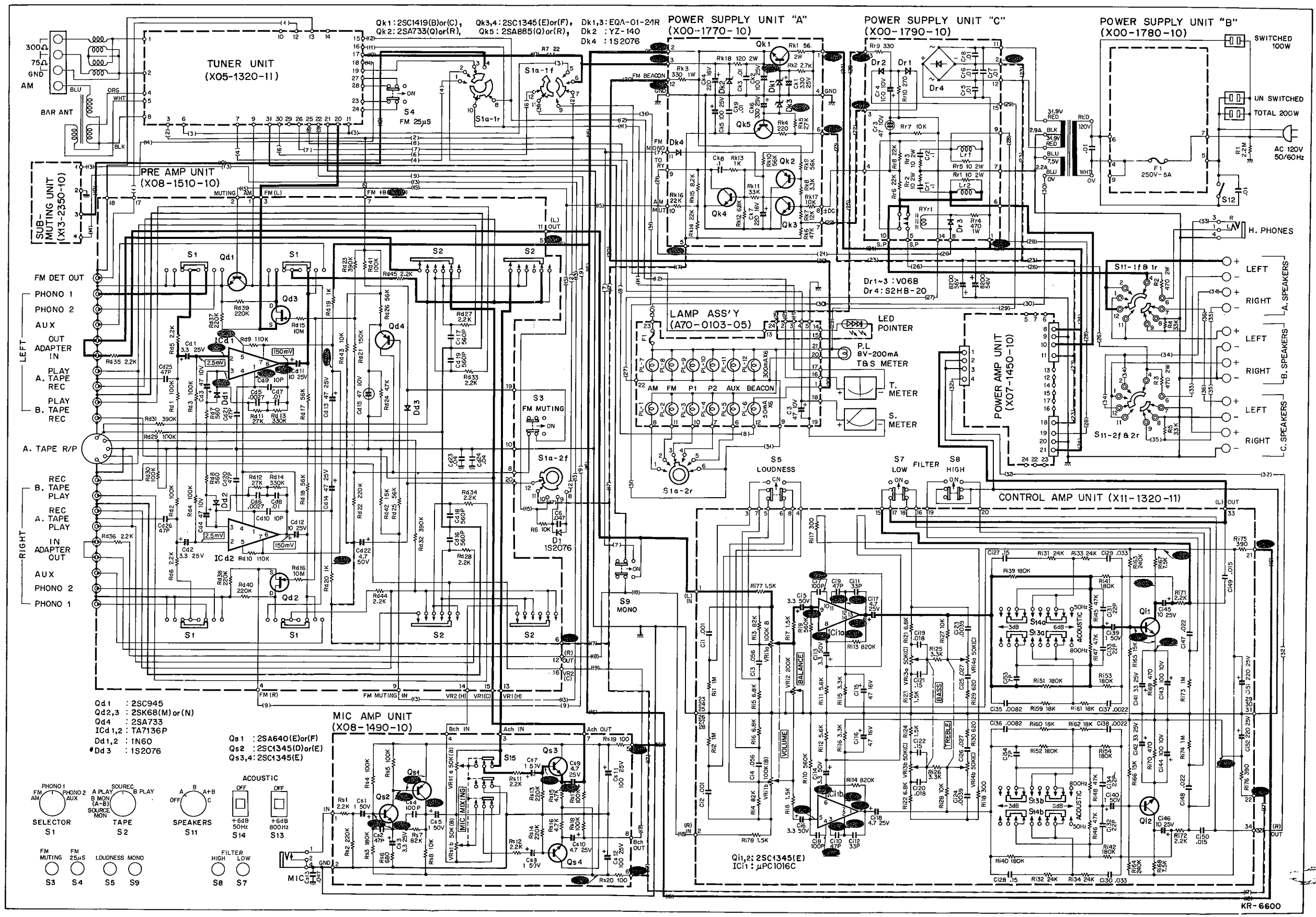
Qi1,2 : 2SC1345(E)
ICi1 : μPC1016C

Dr1~3 : V06B
Dr4 : S2HB-20

DC voltage measured with 20 kΩ/V meter.

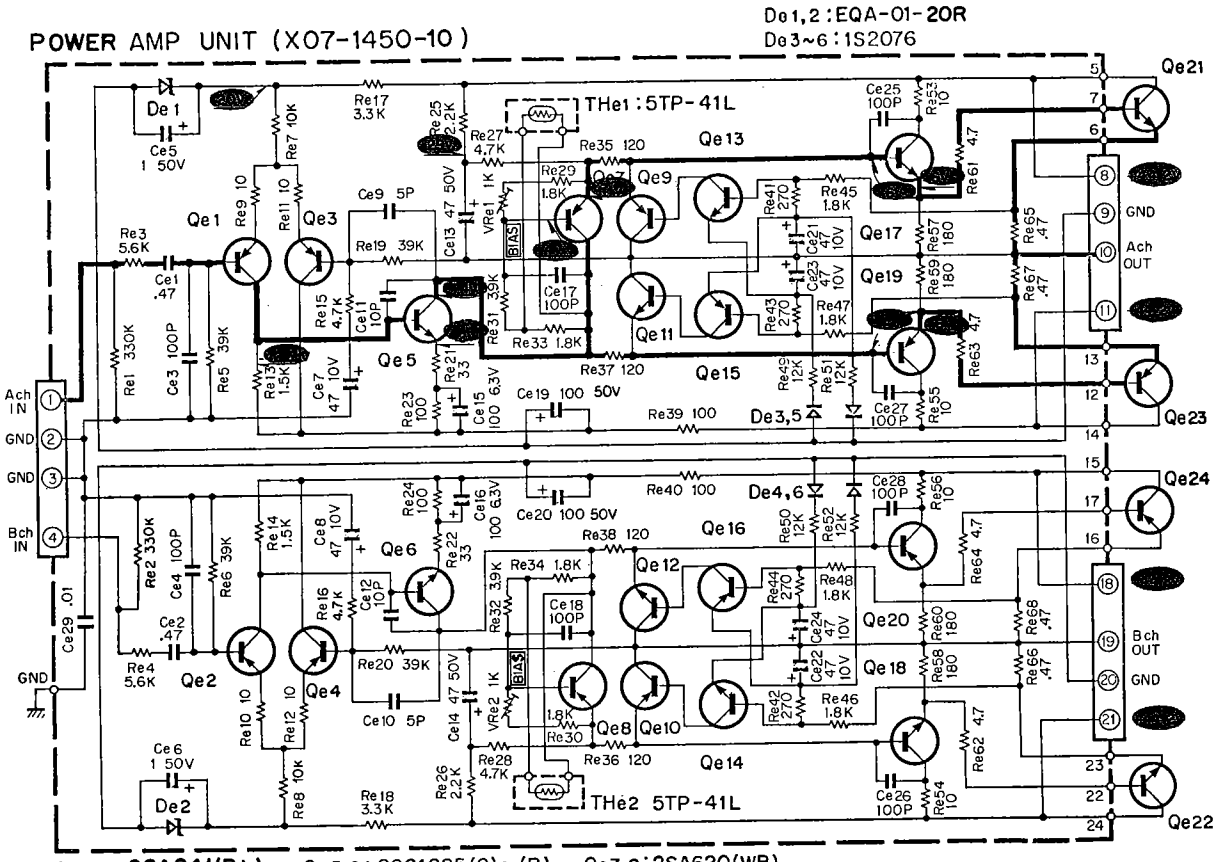
SCHEMATIC DIAGRAM(KR-6600)





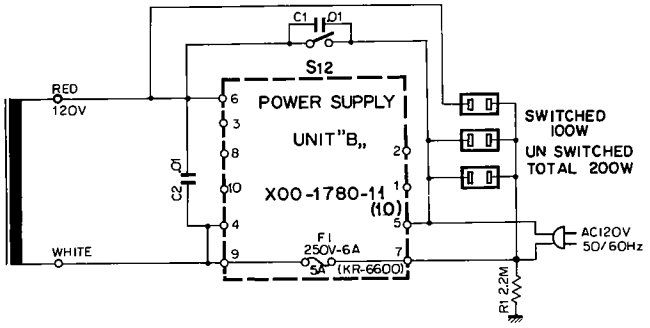
DC voltage measured with 20kΩ/V meter.

KR-6600 POWER AMP SCHEMATIC/DESTINATIONS' SCHEMATIC

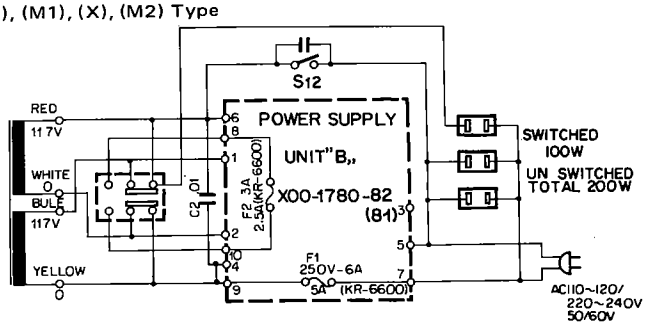


Qe1~4 : 2SA841(BL), Qe5,6 : 2SC1885(Q)or(R), Qe7,8 : 2SA620(WB)
Qe9,10,15,16 : 2SA733(Q)or(R), Qe11~14 : 2SC945(Q)or(R), Qe17,18 : 2SC1567(Q)or(R)
Qe19,20 : 2SA794(Q)or(R), Qe21,22 : 2SC1403(R~Y), Qe23,24 : 2SA745(R~Y)

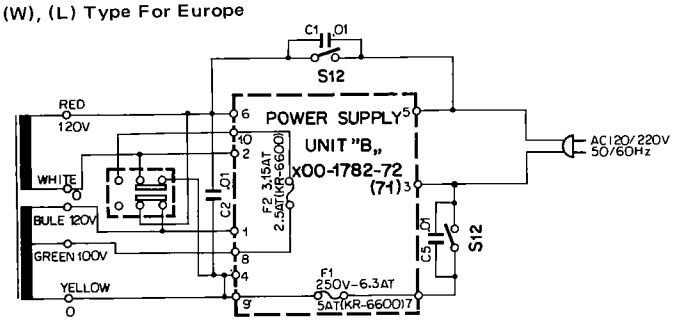
(K), (P) Type



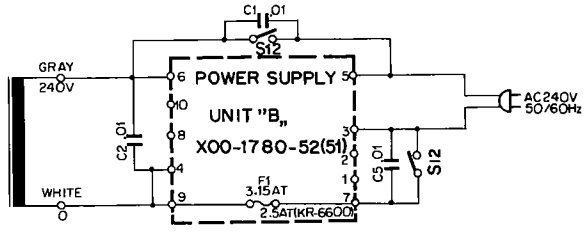
(U), (M1), (X), (M2) Type



(W), (L) Type For Europe



(T) Type For England



KR-7600
(KR-6600)

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